PostFinance Ltd user manual on the harmonization of payment transactions (ISO 20022)

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References

Reference	Title
[1]	Business Rules: Swiss Business Rules for Payments and Cash Management for Customer-to-Bank Messages
[2]	Implementation Guidelines for Transfers: Swiss Implementation Guidelines for Customer-to-Bank Messages for Transfers in Payment Transactions
[3]	ISO 20022 Cash Management: Swiss Implementation Guidelines for Reports in the Bank-Customer Relationship
[4]	"EPO" manual from PostFinance
[5]	"Electronic account documents" manual from PostFinance
[6]	"OSR" manual from PostFinance
[7]	"CH-DD Direct Debit (Swiss Direct Debit)" manual from PostFinance
[8]	"SEPA Direct Debit" manual from PostFinance
[9]	"PostFinance Ltd test platform" manual
[10]	PostFinance glossary for harmonization of payment transactions
[11]	Swiss Usage Guide for ISO 20022 messages as per Swiss recommendations
[12]	Swiss Implementation Guidelines for SEPA Direct Debit
[13]	"ISR" manual from PostFinance

1. Introduction to the “PostFinance Ltd user manual on the harmonization of payment transactions”

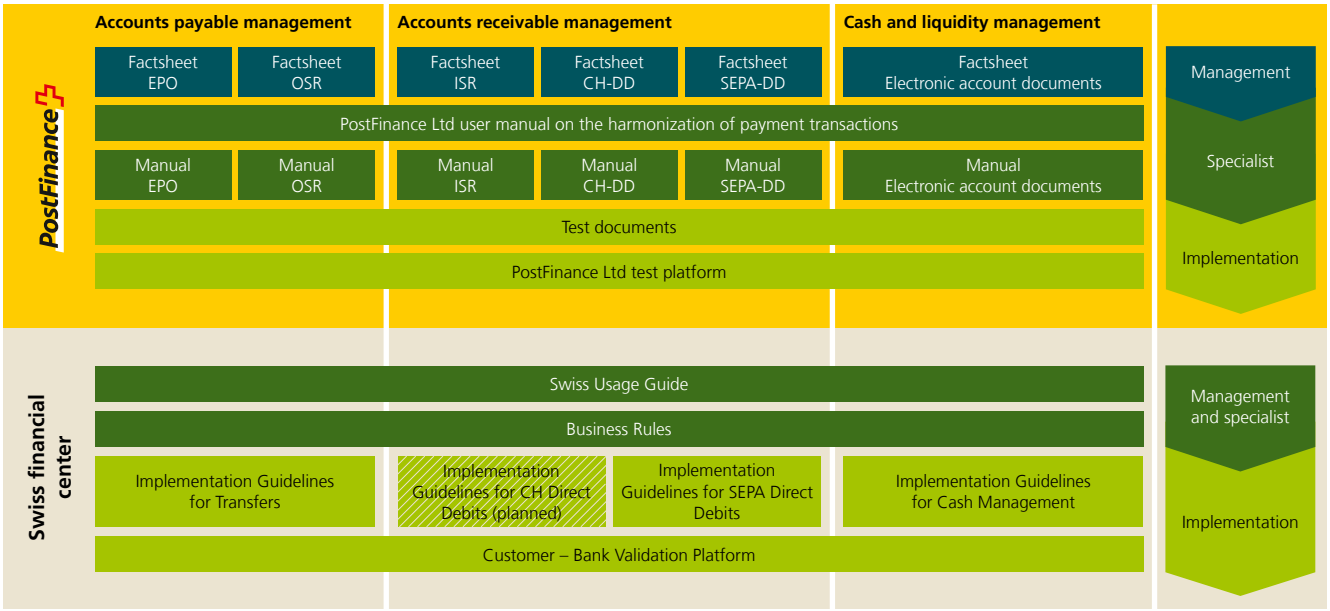
1.1 Purpose

Switzerland currently has two independent payment systems, namely the PostFinance Ltd and the SIX Interbank Clearing (SIC) systems, as well as seven different types of payment slips and more than ten standards for transfer and direct debit payments. The Swiss financial center has decided, within the framework of the “Harmonization of payment transactions in Switzerland” initiative, to introduce the ISO 20022 standard. The goal is to harmonize the variety of different processes by the end of 2017, and thereby also allow a single process for national and international payment transactions for Swiss banking customers – this has been the case in the eurozone since 2014. The areas to be standardized are transfers, debits, account statements, notifications as well as the broad range of slip types currently in use.

This change is a good opportunity for PostFinance customers to analyse their current payment transactions and to lay the basis for even more efficient processes and systems. For PostFinance, ISO 20022 therefore represents much more than a mere technical migration – it is a good opportunity for specialist optimizations of processes for customers and their interface with PostFinance.

PostFinance will make its whole ISO service available from the start of 2016 and will assist its clients from the outset in the analysis, implementation, testing and introduction of the new procedures. For this reason, PostFinance is offering a compatible set of help resources. For management, there are various short fact sheets; for specialists there are various product manuals, in particular the “EPO” manual [4]; the manuals for direct debit schemes (“CH-DD Direct Debit” manual [7], “SEPA Direct Debit” manual [8]) and the “Electronic account documents” manual [5]. The financial center documents include in particular the Swiss Usage Guide [11], Business Rules [1] and corresponding Implementation Guidelines [2], [3], [12] published by SIX. The present user manual is above all aimed at specialists, and fills in the gap between the fact sheets and the detailed manuals.

The following illustration shows the relationship between the available information sources from PostFinance and the Swiss financial center.



This overview shows a selection of the most important documents relating to payment transactions. Other documents can be found on the Internet at **www.postfinance.ch/manuals;** version June 2015

The present manual offers the reader a bank-related user overview of accounts payable and accounts receivable management as well as cash and liquidity management in the context of ISO 20022 harmonization. Therefore, this document can be seen as a link to the documents published by the Swiss financial center.

To this end, the present document focusses on the business departments which are affected by payment transactions (accounts payable management, accounts receivable management, finance department with cash and liquidity management). Within these areas, the uses of the products are demonstrated by means of use cases. The aim is to show a variety of typical use cases (best practice); the actual business processes vary in each company to a greater or lesser degree from what is shown here, depending on the size, content and complexity of the customer's business activity.

In order to support the implementation and testing of the customer's interface with PostFinance, this document also proposes a series of test cases. These best practice test cases are based on use cases and will be made available on the PostFinance test platform, along with test data.

1.2 Target groups

The target groups for the document are PostFinance's **business customers** who carry out Swiss payment transactions. Within these companies, the document applies to both the specialist area as well as to the IT which is operated either by means of the user's own software or by standard software. It is assumed that the company uses software and that such software is also capable of processing ISO 20022 messages. The document is nevertheless a

good source of support for understanding the new service for customers who currently only use software partially (and therefore also use paper processes).

The document is also interesting for **software manufacturers** of standard and individual solutions, who have to adapt software packages or processes in line with the new formats and procedures as part of the harmonization. And finally, this document can also be used by **consultants** to support companies or financial institutions with their adjustments.

1.3 Document structure

The list of standard use cases and certain recurring patterns of interaction are described in section 2. The use cases are grouped by their relationship with accounts payable and receivable processes as well as cash and liquidity management processes. Each user case is described in detail in chapters 3 to 5. The final chapter (chapter 6) describes the best practice test cases. These are available on the PostFinance online test platform and include examples and sample files.

1.4 Glossary

The following glossary should provide assistance in better understanding the specialist concepts outlined in the user manual, and make it easier to navigate the document. For the full glossary, see the PostFinance website "Harmonization of payment transactions" [10]: https://www.postfinance.ch/en/biz/zv/help/glossar.html

Term	Explanation
BEN (charging option)	Abbreviation for "Beneficiary", an option for the handling of payment transaction charges, which causes any charges to be assumed by the creditor. The abbreviation "BEN" is used in various clearing and settlement systems. The ISO 20022 standard uses the code word "CRED" for this.
BIC	A Bank Identifier Code (BIC) is an 8- or 11-digit code (ISO 9362) issued by SWIFT and used to clearly identify all directly and indirectly participating partners (financial institution, company, broker, etc.).
Business-to-Business (B2B)	Signifies communication and trade relations between at least two companies.
Business-to-Customer (B2C)	Stands for communications and trade relationships between companies and private persons (consumers, customers).
camt	camt is the abbreviation for Cash Management. These XML-based message types serve to report between bank and customer as per the definitions set out in the ISO 20022 standard. The relevant messages in this document are camt.054 for the notification of credits and debits, and camt.053 for the account statement.
CH-DD Direct Debit (Swiss Direct Debit)	With the Swiss Direct Debit scheme, the biller can collect claims in Swiss francs and euros electronically from their customers in Switzerland. The debtor can pay quickly and free of charge with this solution.
CH-DD Core Direct Debit (Swiss COR1 Direct Debit)	Swiss COR1 Direct Debit with right of objection is the PostFinance payment scheme for the settlement of debits from business customers charged to consumers in Swiss francs or euros in Switzerland, as set out in the respective rulebook.

Term	Explanation
CH-DD B2B Direct Debit (Swiss B2B Direct Debit)	Swiss B2B Direct Debit without right of objection is the PostFinance payment scheme for the settlement of debits for business customers as billers and business customers as debtors in Switzerland, as set out in the respective rulebook.
CND	Abbreviation for "Collective Advice No Details": Value of the control element in pain.001 for the notification. With this value, an order notification is requested for payment orders, which does not contain details of the individual payments (see also CWD).
CWD	Abbreviation for "Collective Advice With Details": Value of the control element in pain.001 for the notification. This value requests an order notification for payment orders, which does contain details of the individual payments (see also CND).
Gross principle/ Net principle	With the gross principle, the amount of all executable transactions is entered. Customers who submit orders are compensated for non-executable transactions with the same value date. According to the net principle, non-executable transactions are generally not entered; only executable transactions are entered.
ISO reference number	The ISO reference number (Creditor Reference in accordance with ISO 11649 standard) allows the creditor to automatically reconcile his invoices with his incoming payments. In the context of this document, this reference number is used in SEPA payments (use case [13]).
OUR (charging option)	Code word for the handling of payment transaction charges, which causes any relevant charges to be assumed by the debtor. The abbreviation "OUR" is used in various clearing and settlement systems. The ISO 20022 standard uses the code word "DEBT" for this.
pain	pain (Payments Initiation) denotes XML messages used between customers and banks as defined in the ISO 20022 standard. The relevant messages in this document are pain.001 for the submission of payment orders, pain.008 for the delivery of debit orders, and pain.002 for the status reports.
Rejection	The debtor's bank can reject a collection in the direct debit scheme or a payment in the transfer process before settlement on technical grounds or because for any other reason it is not able to carry out the collection or the transfer (R transaction).
RS-PID	The biller's participant number/ID in the Swiss Direct Debit scheme and in the e-bill solution.
R transaction	A transaction that results in exception processing during the payment process is referred to as an R transaction. An R transaction means a payment transaction which cannot be properly executed by a payment service provider or which results in exception processing, for reasons such as a lack of funds, revocation, a wrong amount or a wrong date, a lack of mandate or wrong or closed account.
SEPA	The Single Euro Payments Area (SEPA) is an area encompassing the EU/EEA Member States and Switzerland, within which citizens, companies and other economic operators are able to make and receive payments in euros, whether across or within national boundaries under the same basic conditions, rights and obligations, regardless of their location.
SEPA Credit Transfer Scheme	The SEPA Credit Transfer Scheme is the payment scheme for making euro credit transfers across SEPA, as set out in the respective rulebook.
SEPA Core Direct Debit	The SEPA Core Direct Debit Scheme with right of objection is the payment scheme for settling direct debits in euros from business customers to consumers in the SEPA area, as set out in the respective rulebook.
SEPA B2B Direct Debit	The SEPA B2B Direct Debit Scheme without right of objection is the payment scheme for the settlement of debits in euros across the SEPA area when both the debtor and the creditor are business customers, as set out in the respective rulebook.
SHA (charging option)	Abbreviation for "Shared", an option for the handling of payment transaction charges, which causes any charges to be shared between the debtor and the creditor. The abbreviation "SHA" is used in various clearing and settlement systems. The ISO 20022 standard uses the code word "SHAR" for this. The code word "SLEV" is used for SEPA payments.
Payment	Also known as a "Payment Instruction", this refers to an individual credit to a creditor and forms the smallest processing unit in the payment transaction process. In paper-based payment transactions, the term "Slip" is often also used in its place. Several payments can be summarized in payment orders. Within the context of ISO 20022, payments are shown on C level when they are submitted using pain.001.
Payment file	A payment file is the technical unit with which a debtor can submit their payment orders for processing. Within the context of ISO 2022, this corresponds to the A level.
Payment order	Several payments (individual payments) can be summarized in one payment order. Within the context of ISO 20022, payment orders are shown on B level in pain.001 (EPO) and pain.008 (CH-DD and SEPA-DD). These are often referred to simply as an "Order", which is why the B level of pain.001 and pain.008 is also known as the order level.

2. Use cases and patterns of interaction

2.1 Use cases for harmonization

The following use cases from the payment transactions of business customers are harmonized in the context of this document.
The use cases are grouped according to their affiliation to the three accounting or handling processes:

- Accounts payable processes (transfers and salary payments)
- Accounts receivable processes (direct debit payments and processing credits)
- Cash and liquidity management processes (C&L)

Area		Use case
Accounts payable	**10**	**Settling an inpayment slip with reference number (ISR)** Settlement of a claim with an inpayment slip with reference number (ISR). The use case includes notification of debit and entry on the debtor's side. Notification for the creditor and his (possibly automated) account reconciliation is covered by use case [40]. This use case corresponds to payment type [1] in the Implementation Guidelines and is described in detail in section 3.1.
	11	**Settling a red inpayment slip (IS)** Settlement of a claim with a red inpayment slip (IS) (single-stage slip as standard and two-stage slip as an option). The use case includes notification of debit and entry on the debtor's side. Notification for the creditor is part of use case [41]. This use case corresponds to payment types [2.1, 2.2] in the Implementation Guidelines and is described in detail in section 3.2.
	12	**Execution of domestic payments without a slip** Settlement of a claim without a slip – includes notification of debit and entry on the debtor's side and takes into account the currency conversion option. This use case corresponds to payment types [3, 4] in the Implementation Guidelines and is described in detail in section 3.3.
	13	**Execution of EU area payments** Execution of a SEPA payment (EUR payment in the EU area). Options specifically include the use of creditor references. This use case corresponds to payment type [5] in the Implementation Guidelines and is described in detail in section 3.4.
	14	**Execution of international payments** Execution of a foreign currency payment in Switzerland or abroad (except EUR payments in the EU area) or a CHF payment going abroad. The creditor's financial institution is recorded using BIC. Options include cases with/without currency conversion and charging options (BEN, OUR, SHA). This use case corresponds to payment type [6] in the Implementation Guidelines and is described in section 3.5.
	15	**Inpayment slip with QR code** This use case is included in this document as a placeholder for details later on and is therefore not described in this version.
	16	**Execution of payment with outpayment slip (OSR)** Development of a payment to a creditor whose bank or account details are not known. The debtor makes out an outpayment slip that authorizes the creditor to make a cash withdrawal from a post office. Using an order notification, the debtor is informed when the cash withdrawal has taken place. This use case is described in section 3.6.
	20	**Execution of salary payments** A company pays the salaries of its employees, taking into account standard security aspects affecting salary payments. This use case is described in section 3.7.
	30	**Processing notifications of incorrect payment orders** The debtor's financial institution cannot execute a payment order (or part thereof) due to technically incorrect details in the payment file. Variants include errors and the corresponding bulletins of verification on all levels (A/B/C level of pain.001). This use case is described in section 3.9.
	31	**Notification of changes to payment orders** The financial institution changes the processing details of a payment order and notifies the debtor of the change via a status report. This use case is described in section 3.10.
	32	**Error handling for payment orders with insufficient funds** The debtor's financial institution cannot execute a payment order (or part thereof) due to insufficient funds in the debit account. This use case is described in section 3.11.
	33	**Returning a payment with an unknown recipient** The receiving financial institution cannot assign a received credit to any creditor and returns the payment to the client. This use case is described in section 3.12.

	34	**Returning a misdirected payment** A creditor cannot assign a received credit to any of his open items and returns the payment. This use case is described in section 3.13.
Accounts receivable	40	**Processing an ISR credit notification** A creditor receives ISR credits and processes them in his accounting software based on credit notifications delivered periodically. Use case [10] concerns the settlement of the claim by the debtor. This use case is described in section 4.1.
	41	**Processing an IS credit notification** A creditor receives IS credits and processes them in his accounting software based on credit notifications delivered periodically. Use case [11] concerns the settlement of the claim by the debtor. This use case is described in section 4.2.
	42	**Collection of a SEPA-DD Core Direct Debit in the SEPA area** Collect a claim in the SEPA area by means of Core Direct Debit. The use case includes notification of credit and entry on the creditor's side. This use case is described in section 4.3.
	43	**Collection of a SEPA-DD B2B Direct Debit in the SEPA area** Collect a claim in the SEPA area by means of B2B Direct Debit. The use case includes notification of credit and entry on the creditor's side. This use case is described in section 4.4.
	44	**Collection of a CH-DD COR1 Direct Debit in CHF in Switzerland** Collect a claim with PostFinance by means of COR1 Direct Debit. The use case includes notification of credit and entry on the biller's side. This use case is described in section 4.5.
	45	**Collection of a CH-DD B2B Direct Debit in CHF in Switzerland** Collect a claim with PostFinance by means of B2B Direct Debit. The use case includes notification of credit and entry on the biller's side. This use case is described in section 4.6.
	50	**SEPA-DD Reject on delivery** With Rejects, direct debit orders or individual debits which contain errors, or which cannot be processed by one party, are rejected. They are notified in the pain.002 processing message and reduce the total amount of the SEPA-DD Direct Debit order. This use case is described in section 4.7.
	51	**SEPA-DD Reject before the due date** With Rejects, direct debit orders or individual debits which contain errors, or which cannot be processed by one party, are rejected. Rejects always take place before the direct debit order's due date. They are notified in the pain.002 processing message and reduce the gross amount of the SEPA-DD Direct Debit order. This use case is described in section 4.8.
	52	**SEPA-DD Return after the due date** With Returns, transactions which the debtor's financial institution cannot pay, e.g. due to insufficient funds, are returned. Returns always take place within – five Swiss Post working days from the due date of the SEPA Core Direct Debit Scheme – two Swiss Post working days from the due date of the SEPA B2B Direct Debit Scheme They are notified as a Return in the account statement. This use case is described in section 4.9.
	53	**SEPA-DD Refund after the due date** Transactions which have already been booked and which are not accepted by the debtor are rejected. They are notified as a Return in the account statement. This use case is described in section 4.10.
	54	**CH-DD Reject on delivery** With Rejects, direct debit orders or individual debits which contain errors, or which cannot be processed by one party, are rejected. They are notified in the pain.002 processing message and reduce the total amount of the CH-DD Direct Debit order (net credit principle). This use case is described in section 4.11.
	55	**CH-DD Refund after the due date** Transactions which have already been booked and which are not accepted by the debtor are rejected. They are notified as a Return in the account statement. This use case is described in section 4.12.
C&L	60	**Processing an account statement** This can refer to an account statement with detailed notification or to an account statement without detailed notification in addition to a detailed notification (camt.054) which contains the transaction details. This use case is described in section 5.1.
	61	**Processing intraday account movements** Evaluating intraday account information with entries since the last account statement (camt.053); this is used in the first instance by large companies. This use case is described in section 5.2.
	62	**Processing a credit notification** Evaluating an intraday notification with credit or debit (camt.054), facilitating the establishment of intraday liquidity flow; this use case is predominantly found among large companies with complex payment processes. This use case is described in section 5.3.
	63	**Processing a debit notification** Evaluation of an intraday notification with credit or debit (camt.054), facilitating establishing intraday liquidity flow; this use case is predominantly found among large companies with complex payment processes. This use case is described in section 5.4.

The selection of use cases is based on the Business Rules and Implementation Guidelines; reference is made to the relevant payment types in the text. The following accounts payable payment types are not included, due to the objective of the present document (focussing on common standard cases) and the infrequent use of these payment types: "CHF outpayment order made in Switzerland (payment type 7)" and "bank check/postcash at home and abroad in all currencies (payment type 8)".

It should be noted that after all efforts to complete harmonization, use cases 10 and 11, which are based on the familiar orange inpayment slips with reference number (ISR) and red inpayment slips (IS) are no longer in use and will be replaced by the inpayment slip with QR code (use case 15). Due to their frequent use and long transitional period, these use cases have been included in this document.

Use cases 13 and 14 describe payments abroad in foreign currency. Due to the specific requirements of SEPA, EUR payments within Europe are described as standalone use case 13.

2.2 Message exchange

The ISO 20022 standard offers a variety of options for participants in payment transactions to exchange information and messages. Within the context of best practice, a message exchange which demonstrates the essentials of the process is defined below.

The minimum standard for processing payments according to ISO 20022 includes the submission of payments or direct debit orders using pain.001 (transfers) or pain.008 (direct debits). The ordering customer's institution reviews and confirms the receipt of payment orders using pain.002. Following execution, the ordering customer's institution issues a notification of the execution of the order (for accounts payable, pain.001) or the credit (for direct debits, pain.008) using camt.054. The ordering customer's institution informs the customer periodically about movements on his account using an electronic account statement in the form of camt.053.

Patterns of interaction and message exchange	
EPO delivery (pain.001)	Payment orders are submitted using pain.001. This document assumes that a batch entry is requested for each payment order (batch booking = true) and that the electronic debit notification using camt.054 includes the necessary details to match it to the debtor's software (notification option CWD should be selected). In the case of salary payments, it is assumed that a batch entry is required for each salary payment order (batch booking = true) and that electronic notification with the entry details is omitted, after taking into account the necessary discretion (sensitive data). An execution confirmation is delivered using camt.054 without details (to this end the CND notification option is selected). When a submission is made using pain.001, individual payments (on C level) can be combined on payment orders (on B level). When combining individual payments on payment orders, ensure that the following features of individual payments are identical: – Debit account of the payment – Currency of the payment – Requested execution date of the payment In the context of this document, as per the ISO 20022 standard, the terms transfer and payment orders are used. In the PostFinance ISO 20022 service, the submission product is known as an "Electronic Payment Order (EPO)" (see PostFinance's corresponding "EPO" manual [4]).
Delivery of direct debits (pain.008)	Debit orders are submitted using pain.008. The credits take place as batch bookings and the electronic notification can be integrated into the account statement as camt.053 with detailed notification or as a separate detailed notification (camt.054). The PostFinance ISO 20022 service contains two products for the delivery of debits: – CH-DD Direct Debit (Swiss Direct Debit): see PostFinance's "CH-DD Direct Debit (Swiss Direct Debit)" [7] manual – SEPA Direct Debit: see PostFinance's "SEPA Direct Debit" [8] manual
Status report (pain.002)	After receiving the delivery and checking the transfer (EPO with pain.001) and direct debits (SEPA-DD as well as CH-DD via pain.008) by the customer's financial institution, the financial institution confirms receipt and checking (format and content) by means of a status report (pain.002). Whether the submission is successful or defective, the status report includes one status message for each submitted payment order (per B level in pain.001/pain.008). Where the original order (B level of pain.001/pain.008) contains defective transactions, the details of the individual errors are shared with the submitting customer by means of a pain.002. It should be noted that PostFinance generates different pain.002 status reports (receipt confirmation, status report upon execution) depending on the delivery channel and message type (pain.001/pain.008). The details of the various pain.002 messages and what they mean are documented in the corresponding manual. In this document, the term "status report" is used for pain.002 messages, as per the ISO 20022 standard.
Order notification (camt.054)	After successfully executing a payment, the financial institution informs the debtor using an order notification (camt.054). The order notification contains details at D level of each submitted payment (C level of the submitted pain.001), if notification option CWD was selected on submission (pain.001). If notification option CND was selected on submission (pain.001), the order notification (camt.054) contains no details. The details for each executed single payment in camt.054 are used for this purpose in the debtor's software to match recorded payments with the actual amounts. This includes: – Effective execution date (entry date at C level) – Resulting total amount in account currency – Exchange rate applied (for payments with currency conversion) – Charges incurred In the context of ISO 20022, the term "debit notification" is used for order notification. In the specific case of salary payments, no order notifications are recommended, in order to maintain confidentiality (see use case [20] in chapter 3.7). The term "order notification" (camt.054) used in this document corresponds to the EPO order notification (camt.054), as used in PostFinance's "EPO" manual [4].
Account statement (camt.053)	Using the account statement (camt.053), the client can remain informed about entries and their account balance. In the context of this document, the account statement is used for various types of debits and credits in the use cases. For more detailed information, consult the PostFinance "Electronic account documents" manual [5].

Detailed notification	For notification of transaction details from credits (ISR, IS, CH-DD and SEPA-DD) as well as OSR outpayments there are two services available, as described in the PostFinance "Electronic account documents" manual [5]: **Account statement with detailed notification (camt.053)** The service includes the notification of all batch entries and detailed transactions in a single electronic account statement (camt.053). **Account statement with batch entries (camt.053) and separate detailed notification (camt.054)** The service includes notification of all batch entries in an electronic account statement (camt.053), with credits, debits, cancellations and corrections displayed as a stand-alone C level. For all detailed transactions, a detailed notification (camt.054) follows, which is divided by product type (ISR, IS, OSR, CH-DD, SEPA-DD). For reasons of clarity, it is assumed in each respective use case that the customer has chosen the second service, i.e. separate detailed notifications in camt.054 format.
Intraday account movements (camt.052)	The ISO 20022 message camt.052 for intraday account movements can be delivered at regular intervals (every hour or every two hours) or daily, up to a maximum of three set times. Each camt.052 message contains all the entries since the last regular account statement. For more detailed information, consult the PostFinance "Electronic account documents" manual [5].
Credit and debit notification (camt.054)	Credit and debit notifications are shown in the ISO 20022 standard using camt.054 messages. The delivery of credits and debits is constant, via inputs and outputs. The customer has the option to reduce the number of deliveries by defining a limit amount, above which he will receive a notification. For more detailed information, consult the PostFinance "Electronic account documents" manual [5].

2.3 Status in payment process

The ISO 20022 standard provides various information flows from the financial institution to the customer, which make it possible to map the handling process of payments in detail. For creditors and debits, this means many new options for automated processing.

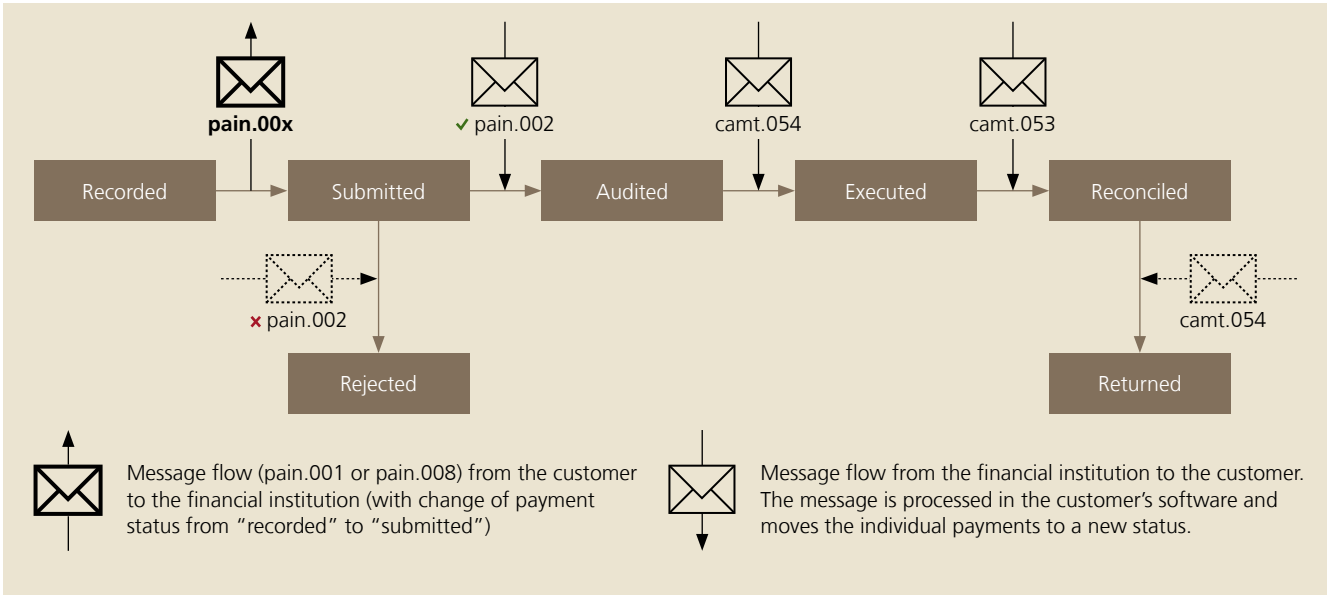


Figure 1: Overview of the payment status options in the customer's accounting software. Detailed reply messages from the financial institution allow the customer to track the payment status. The dashed lines represent optional processes.

Different statuses of a payment order	
Submitted	Status of a payment once the customer has sent the transaction to his financial institution (pain.001 is generated and sent to the financial institution).
Audited	After successful submission, when the financial institution has successfully checked the payment. It should be noted that PostFinance generates different pain.002 status reports (receipt confirmation, status report upon execution) depending on the delivery channel and message type (pain.001/pain.008). The details of the various pain.002 messages and what they mean are documented in the corresponding manual. This document therefore avoids providing a differentiated description.
Rejected	After submission, once the financial institution has found errors and the customer has been notified in a status report (pain.002).
Executed	The financial institution has initiated the payment, charged the account, and transferred the payment to the customer's financial institution. From this point onwards, the details are fixed (for example, information on the applied exchange rate for foreign currency payments can no longer be changed from this status) and the customer is notified by means of camt.054.
Reconciled	Once the account statement (camt.053) has been processed successfully, the individual payments in the customer's accounting system are considered to be reconciled.
Returned	After successful execution (and possibly already successful account reconciliation), the order recipient or his financial institution can return the payment.

2.4 PostFinance's detailed notification service

Within the context of the introduction of the ISO service, detailed notifications of important PostFinance services are provided as ISO messages (the ISR, IS, OSR, CH-DD, SEPA-DD services offer detailed notifications). PostFinance customers therefore have the choice between two fundamentally different notification models:

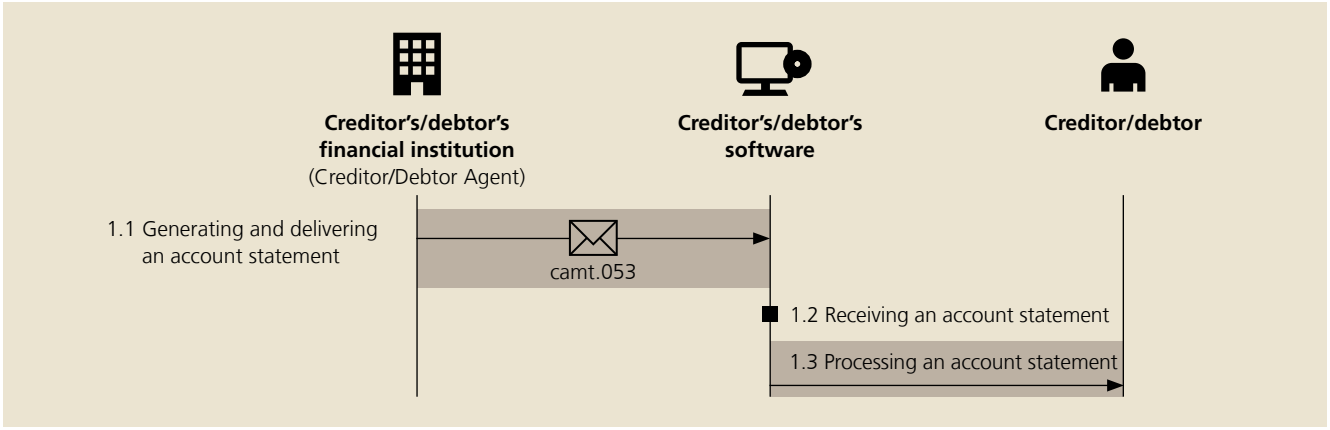
– The customer receives a notification for individual transactions within the framework of the electronic account statement with details. These variants are explained in brief below as "Account statement with detailed notification (camt.053)".
– The customer receives the individual transactions from different services via dedicated detailed statements (camt.054), whereas the account statement then contains no details of the summary bookings. This variant is explained below as "Account statement with batch entries (camt.053) and separate detailed notification (camt.054)".

The variant "Account statement with detailed notification" is designed for small and middle-sized companies with limited volumes and little division of labour. The account statement with batch entries and separate detailed notification is designed for larger companies, where specific areas are dealt with by organizationally separate departments.

Important note
These two options for detailed notification are independent of the individual services (ISR, IS, OSR, CH-DD and SEPA-DD). In the following chapters (in particular the use cases for accounts receivable processes), account statements with batch entries and separate detailed notifications are taken into account. It should be noted that the notification model can be selected and established for each account.

2.4.1 Account statement with detailed notification (camt.053)

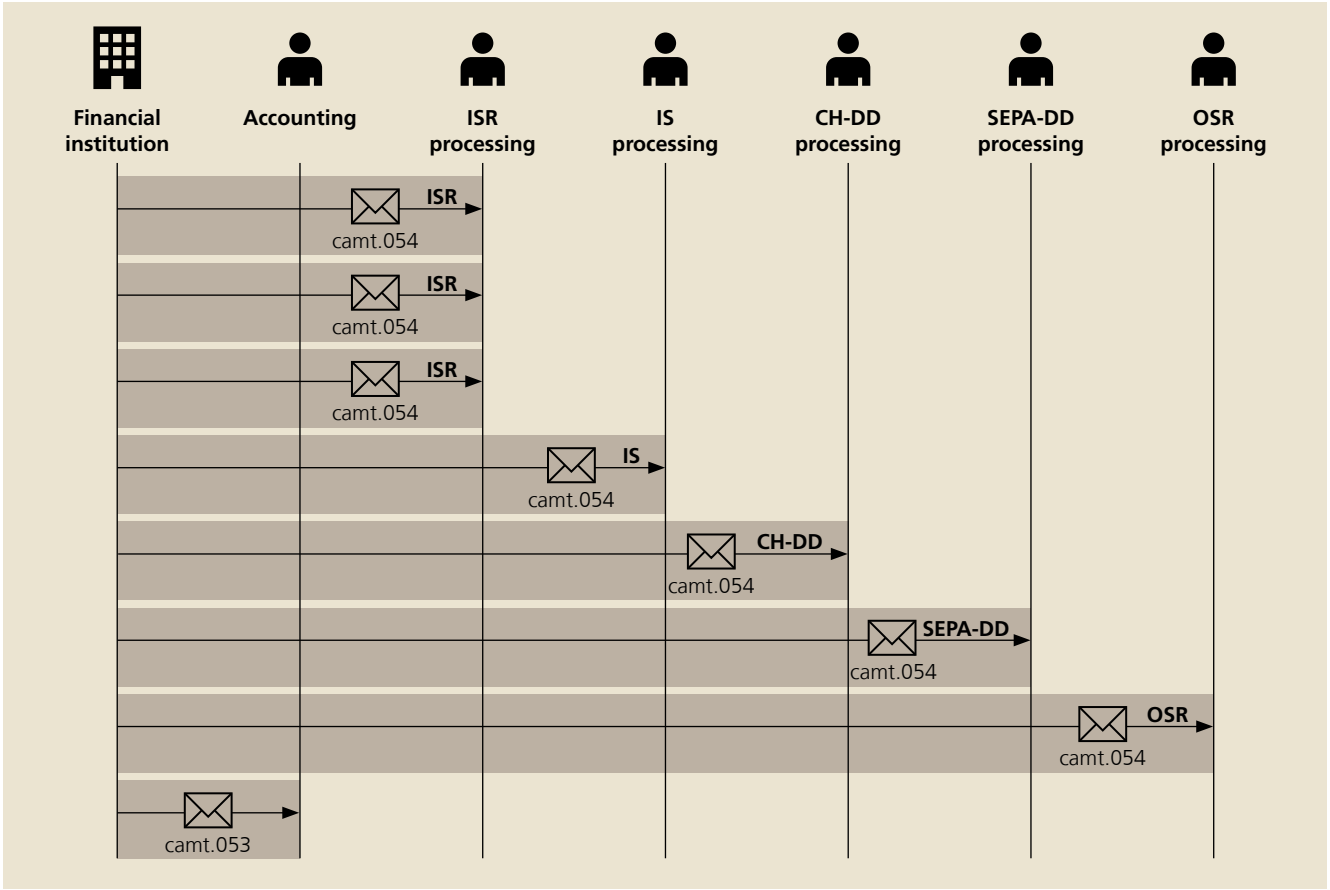
In an account statement with detailed notification (camt.053), as well as in batch entries at the C level, the detailed entries at the D level are shown in full. When processing detailed transactions (for example for reconciling open items from the ISR process), the transaction details are taken from the account statement.



2.4.2 Account statement with batch entries (camt.053) and separate detailed notification (camt.054)

With this variant, the account statement only contains the summary bookings at the C level (without details at the D level). The transaction details which are needed for checking against accounts receivable, for example, are provided to the customer with separate delivery units. In this way, one dedicated detailed notification is created for each service (camt.054). The periodic account statement (camt.053) without details contains the summary entries for the individual services.

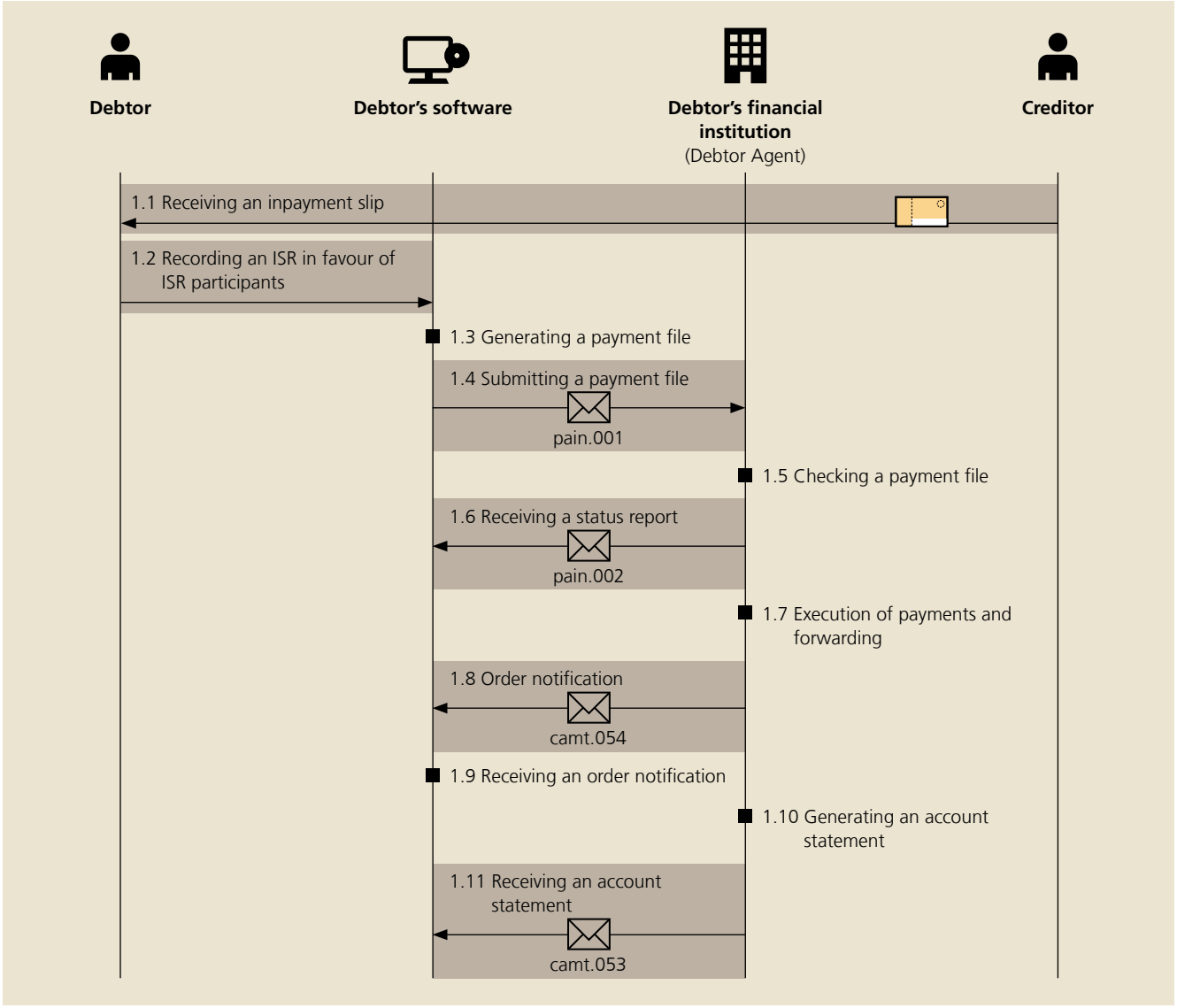
The following example illustrates the notification of transactions from different services with different periodicities and different organizational units processing them. It shows a customer who receives daily ISR notification files (camt.054 ISR) and passes these on to the ISR processing. Transactions from the IS, CH-DD Direct Debit, SEPA-DD Direct Debit and OSR services are notified with separate notification files, for example weekly, and are sent to separate organizational units within the organization. The account statement (camt.053) is created monthly in this example, and processed by the accounting.



3. Accounts payable process use cases

The use cases are divided into "good cases" (use cases 10–20) and exceptional cases (use cases 30–34).

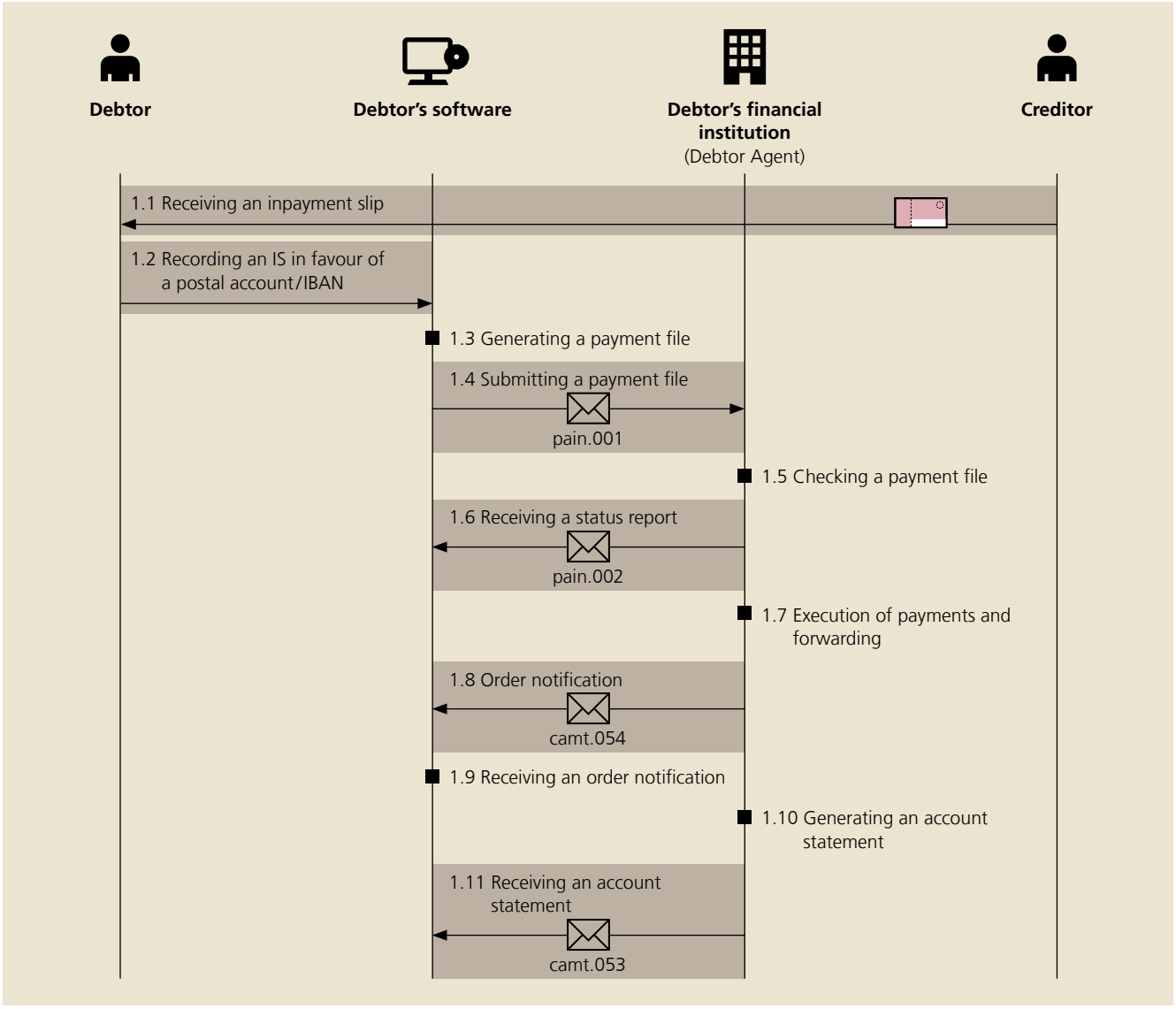
3.1 Settling an inpayment slip with reference number (ISR) [10]



Brief description	A debtor receives and settles an inpayment slip with reference number (ISR) using pain.001.
Preconditions	A creditor has sent an invoice to the debtor for settlement using an inpayment slip with reference number (ISR).
Main process	**1.1 Receiving an inpayment slip** The debtor receives an inpayment slip with reference number (ISR) from the creditor.

	1.2 Recording an ISR in favour of ISR participants – The debtor records the following in his accounts payable (manually or with the aid of a scanner): debit account, ISR participant number, ISR reference number, amount, currency (CHF or EUR) and requested execution date. The creditor details are taken automatically from the accounts payable system. – In contrast to the recording of an ISR in favour of a postal account (single-stage slip), the inpayment slip with reference number (ISR) in favour of a bank account (two-stage slip) holds information on both the creditor's bank and the creditor himself. Recording the creditor information in pain.001 is identical in both cases, giving details of the ISR participant number (creditor account) and the ISR reference number (remittance information). **1.3 Generating a payment file** The debtor uses accounts payable to generate a payment file (pain.001), which includes the recorded payment. Each individual payment is given a unique reference (end-to-end reference). This reference is unique to each debtor over the entire duration of their relationship with the financial institution. Payments with the same currency, the same debit account and the same requested execution date are combined into one payment order; debit notification (using camt.054) with details (CWD) should be selected. **1.4 Submitting a payment file** The debtor submits the payment file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]). **1.5 Checking a payment file** The financial institution performs structural and specialist checks on the payment file and informs the debtor of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors. For this reason, only a status report (pain.002) which confirms the order with the status Accepted (ACCP) is generated. For a description of exceptional situations (status report with validation errors or warnings), please refer to use cases [30–33]. **1.6 Receiving a status report** The debtor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received. **1.7 Execution of payments and forwarding** On the requested execution date, the debtor's financial institution executes the payment, debits the debit account specified in pain.001, and forwards the payment to the creditor's financial institution. **1.8 Order notification** The financial institution generates a debit notification in the form of a camt.054 and presents it to the debtor. **1.9 Receiving an order notification** The debtor's accounts payable system receives the debit notification (camt.054) and tracks the status of the corresponding payment in his accounts payable based on the received status report. The order notification contains the entered amount in the account currency, the accounts payable system tracks the debit item based on the successful entry. **1.10 Generating an account statement** The financial institution informs the debtor about successful entries and the current account balance based on the account statement (camt.053), according to the periodicity requested by the client. **1.11 Receiving an account statement** The debtor's accounts payable system receives the account statement (camt.053) and reconciles the executed payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance.
Alternative process	**2.1 Detailed account statement without order notification** Alternative step for: Generating a payment file (1.3) Alternatively, the debtor may dispense with a notification of details after execution (camt.054) and instead receive a detailed notification in camt.053. The details for each executed single payment in camt.053 are used for this purpose in the debtor's software to match recorded payments with the actual amounts. The notification option CND and "batch booking = false" should be selected.

3.2 Settling a red inpayment slip (IS) [11]



Brief description	The debtor receives and settles a red inpayment slip (IS) using pain.001.
Preconditions	The creditor has sent an invoice to the debtor for settlement using a red inpayment slip (IS).
Main process	**1.1 Receiving an inpayment slip** The debtor receives a single-stage red inpayment slip (IS) from the creditor. **1.2 Recording an IS in favour of a postal account / IBAN** – The debtor manually records the following in his accounts payable: creditor, postal account, amount, currency (CHF or EUR), execution date and message field. – In contrast to the recording of an IS in favour of a postal account (single-stage slip), the red inpayment slip (IS) in favour of a bank account (two-stage slip) holds information on both the creditor's bank and the creditor himself. The creditor details in pain.001 are entered differently for both cases. – In the case of an IS in favour of a postal account (1.2), the creditor's postal account and address details must be recorded. – In the case of an IS in favour of an IBAN (1.2), the BC of the creditor's financial institution, the creditor's IBAN and the creditor's address details must be recorded.

1.3 Generating a payment file

– The debtor uses accounts payable to generate a payment file (pain.001), which includes the recorded payments. Each payment is given a reference (end-to-end reference), which shall remain unique for an indefinite period.
– Payments with the same currency, the same debit account and the same requested execution date are combined into one payment order; debit notification (using camt.054) with details (CWD) should be selected.

1.4 Submitting a payment file

The debtor submits the payment file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]).

1.5 Checking a payment file

The financial institution performs a structural and technical check on the payment file and informs the debtor of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors. For this reason, only a status report (pain.002) which confirms the order with the status Accepted (ACCP) is generated. For a description of exceptional situations (status report with validation errors or warnings), please refer to use cases [30–33].

1.6 Receiving a status report

The debtor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received.

1.7 Execution of payments and forwarding

On the requested execution date, the debtor's financial institution executes the payment, debits the debit account specified in pain.001, and forwards the payment to the creditor's financial institution.

1.8 Order notification

The financial institution generates a debit notification in the form of a camt.054 and presents it to the debtor.

1.9 Receiving an order notification

The debtor's accounts payable system receives the debit notification (camt.054) and tracks the status of the corresponding payment in his accounts payable based on the received status report.
The order notification contains the entered amount in the account currency, the accounts payable system tracks the debit item based on the successful entry.

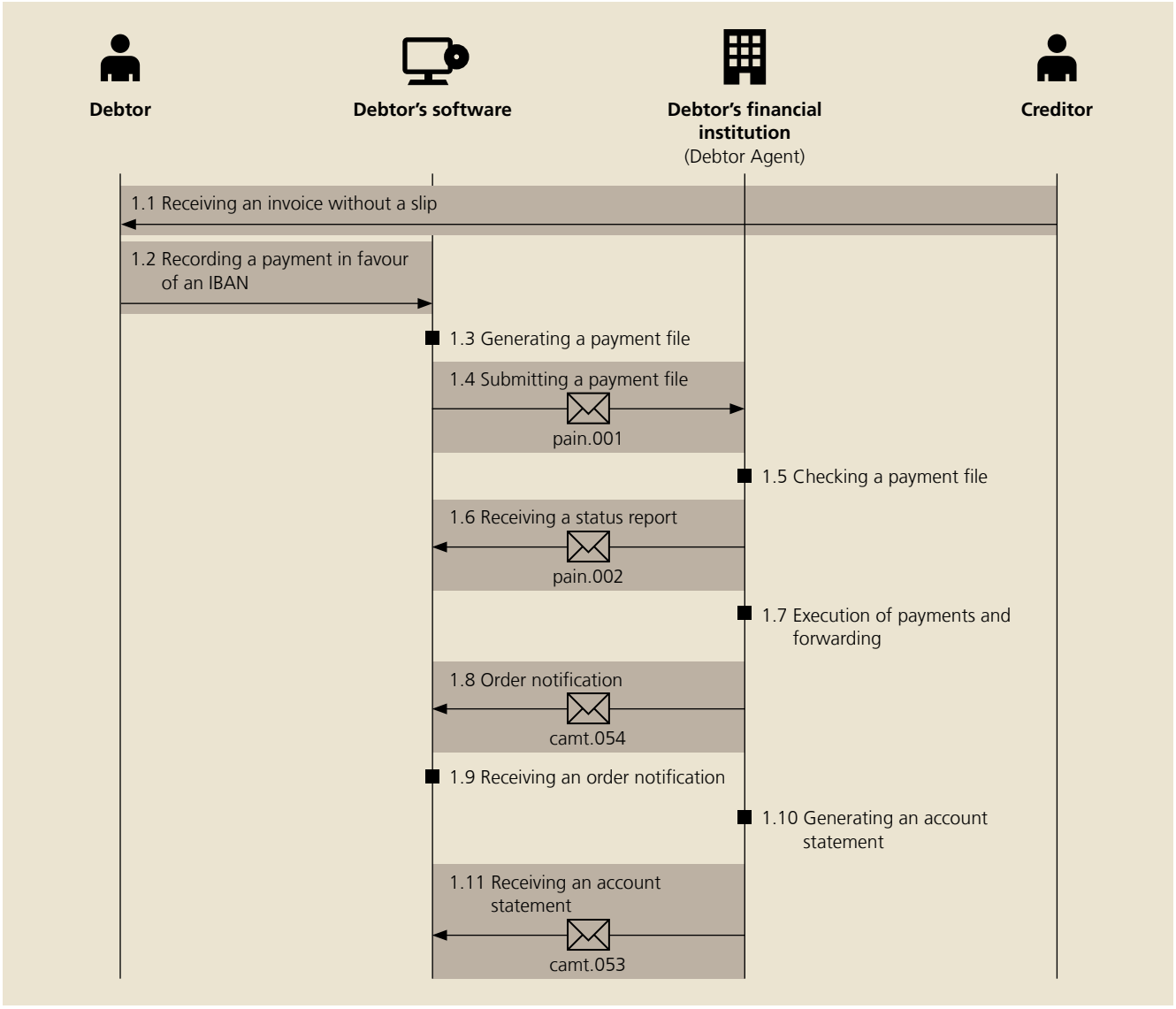
1.10 Generating an account statement

The financial institution informs the debtor about successful entries and the current account balance based on the account statement (camt.053), according to the periodicity requested by the client.

1.11 Receiving an account statement

The debtor's accounts payable system receives the account statement (camt.053) and reconciles the executed payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance.

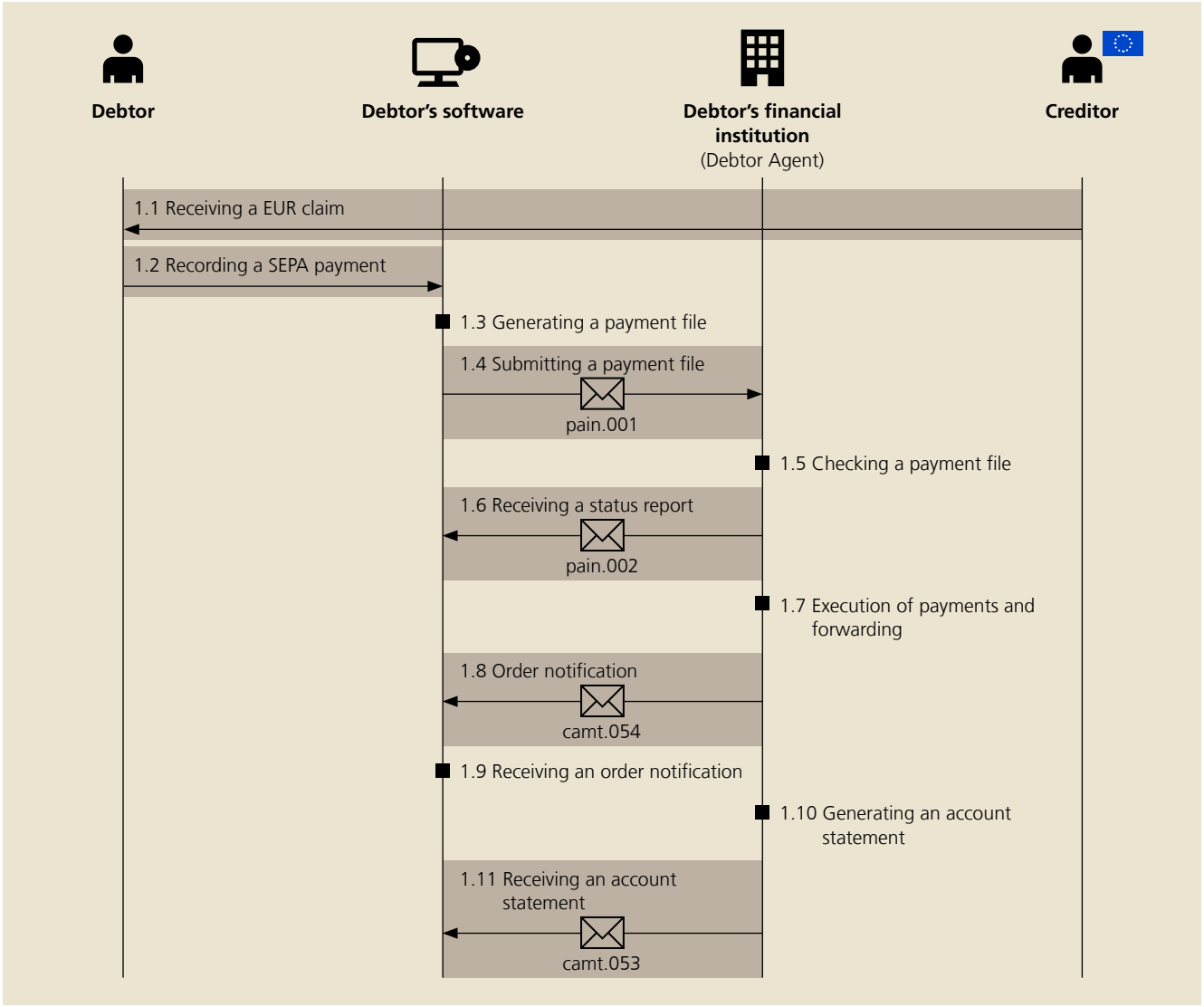
3.3 Execution of domestic payments without a slip [12]



Brief description	The debtor receives and settles an invoice without a slip using pain.001.
Preconditions	The creditor has sent an invoice to the debtor for settlement without a slip.
Main process	**1.1 Receiving an invoice without a slip** The debtor receives an invoice from the creditor without a slip. **1.2 Recording a payment in favour of an IBAN** The debtor manually records the following in his accounts payable: creditor, BC number of the creditor's financial institution, IBAN, amount, currency (CHF or EUR), execution date and an unstructured message to the creditor. The currency of payment is the currency of the debit account. **1.3 Generating a payment file** The debtor uses accounts payable to generate a payment file (pain.001), which includes the recorded payments. Each payment is given a reference (end-to-end reference), which shall remain unique for an indefinite period. Payments with the same currency, the same debit account and the same requested execution date are combined into one payment order; debit notification (using camt.054) with details (CWD) should be selected.

	1.4 Submitting a payment file The debtor submits the payment file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]). **1.5 Checking a payment file** The financial institution performs a structural and technical check on the payment file and informs the debtor of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors. For this reason, only a status report (pain.002) which confirms the order with the status Accepted (ACCP) is generated. For a description of exceptional situations (status report with validation errors or warnings), please refer to use cases [30–33]. **1.6 Receiving a status report** The debtor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received. **1.7 Execution of payments and forwarding** On the requested execution date, the debtor's financial institution executes the payment, debits the debit account specified in pain.001, and forwards the payment to the creditor's financial institution. **1.8 Order notification** The financial institution generates an order notification in the form of a camt.054 and presents it to the debtor. **1.9 Receiving an order notification** The debtor's accounts payable system receives the order notification (camt.054) and tracks the status of the corresponding payment in his accounts payable based on the status report received. The order notification contains the entered amount in the account currency, the accounts payable system tracks the debit item based on the successful entry. **1.10 Generating an account statement** The financial institution informs the debtor about the entries made and the current account balance based on the account statement (camt.053), according to the periodicity requested by the customer. **1.11 Receiving an account statement** The debtor's accounts payable system receives the account statement (camt.053) and reconciles the executed payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance.
Alternative process	**2.1 Execution with currency conversion** Alternative step for: Recording a payment in favour of an IBAN (1.2) Payment currency does not match the account currency. The applied exchange rate can be seen in the accompanying order notification (camt.054).

3.4 Execution of EU area payments [13]



Brief description	The debtor settles a claim from a creditor in the EU.
Preconditions	– The creditor has sent an invoice to the debtor for settlement. The creditor, the creditor's IBAN and his financial institution as a BIC are known. – The creditor has provided the debtor with a reference (creditor reference or structured creditor reference according to ISO standard 11649).
Main process	**1.1 Receiving a EUR claim** The debtor receives information from the creditor in the Euro area to settle a claim in EUR. **1.2 Recording a SEPA payment** The debtor records the payment in his accounts payable, referencing the EUR account to be debited, the creditor's address and IBAN, the structured creditor reference or an unstructured message, the creditor's financial institution (BIC), the amount in euros and the requested execution date. The payment is standardized by the recorder as a SEPA payment. The payment of charges is set by the accounts payable system to SLEV based on SEPA standardization.

	1.3 Generating a payment file The debtor uses accounts payable to generate a payment file (pain.001), which includes the recorded payment. Each payment is given a reference (end-to-end reference) by the accounts payable system, which shall remain unique for an indefinite period. Payments with the same currency (in this case EUR), the same debit account and the same requested execution date are combined into one payment order; debit notification (using camt.054) with details (CWD) should be selected. **1.4 Submitting a payment file** The debtor submits the payment file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]). **1.5 Checking a payment file** The financial institution performs a structural and technical check on the payment file (according to SEPA validation rules) and informs the debtor of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors. For this reason, only a status report (pain.002) which confirms the order with the status Accepted (ACCP) is generated. For a description of exceptional situations (status report with validation errors or warnings), please refer to use cases [30–33]. **1.6 Receiving a status report** The debtor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received. **1.7 Execution of payments and forwarding** On the requested execution date, the debtor's financial institution executes the payment, debits the debit account specified in pain.001, and forwards the payment to the creditor's financial institution. **1.8 Order notification** The financial institution generates an order notification in the form of a camt.054 and presents it to the debtor. **1.9 Receiving an order notification** The debtor's accounts payable system receives the individual confirmation (camt.054) and tracks the status of the corresponding payment in his accounts payable based on the status report received. The order notification contains the entered amount in the account currency, the accounts payable system tracks the debit item based on the successful entry. **1.10 Generating an account statement** The financial institution informs the debtor about the entries made and the current account balance based on the account statement (camt.053), according to the periodicity requested by the customer. **1.11 Receiving an account statement** The debtor's accounts payable system receives the account statement (camt.053) and reconciles the executed payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance in the accounts payable system.
Alternative process	**2.1 Recording a EUR payment with a CHF debit account** Alternative step for: Recording a SEPA payment (1.2) The EUR payment is debited from a CHF account. The order notification (camt.054) then includes the relevant exchange rate information. The accounts payable system matches the effective total amount in account currency when processing the order notification.

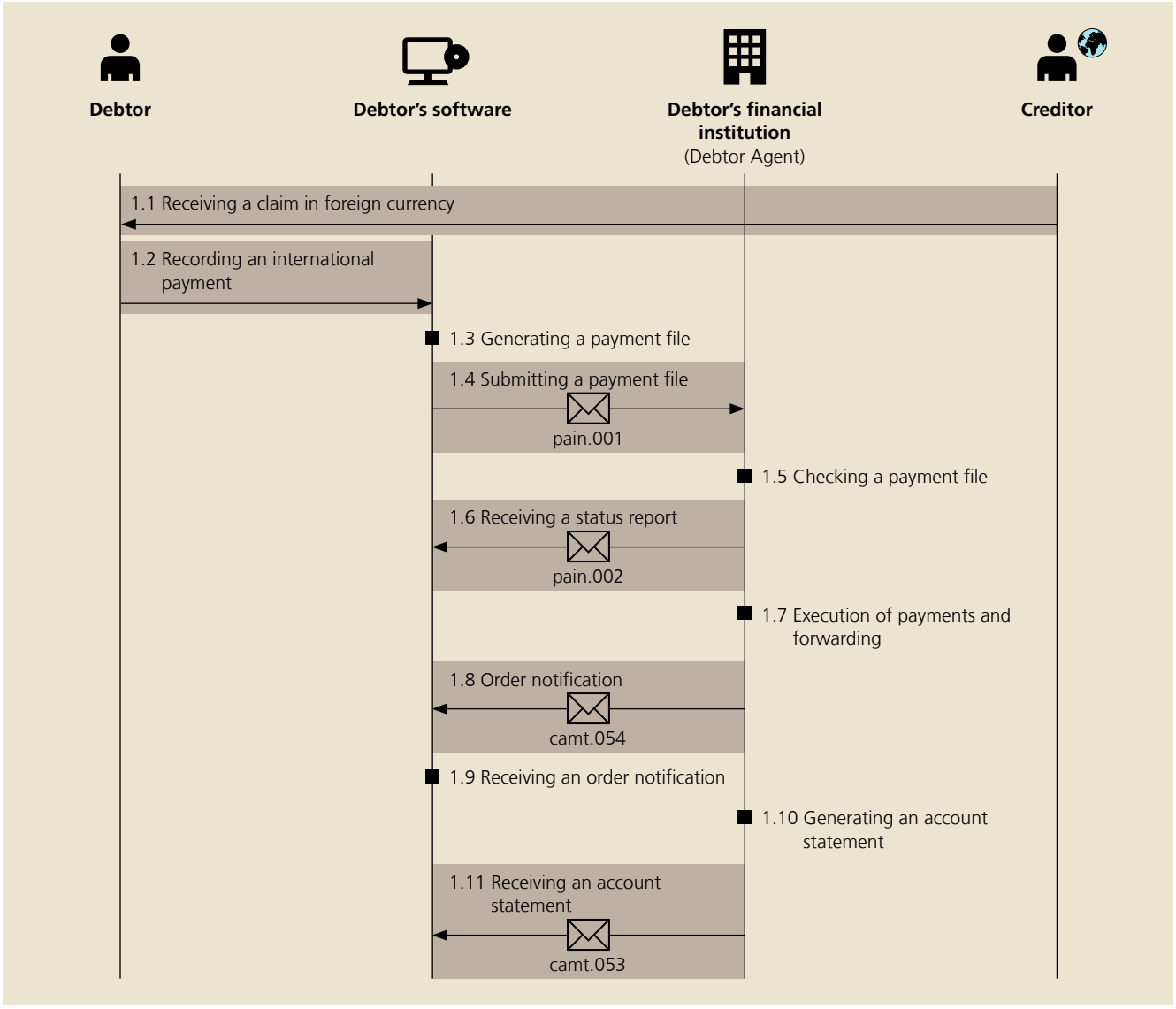
Upon receipt of the payment file (pain.001), the financial institution checks the accuracy of the technical and information content. In the case of EU area payments, this includes the SEPA criteria:

- Transfer currency in EUR
- Use of the IBAN for the creditor's account
- BIC of the creditor's financial institution
- The creditor's financial institution must be a SEPA participant
- Payment of charges SLEV (fee splitting for SEPA payments, i.e. the ordering customer and the recipient each pay the fees incurred by their own bank)

– No express payment orders (urgent)
– No instructions to the bank

Payments in EUR, which meet the SEPA criteria, can be marked as (free) SEPA payments during electronic submission. PostFinance also executes such payments without this explicit marking as a SEPA payment, to the benefit of the debtor.

3.5 Execution of international payments [14]

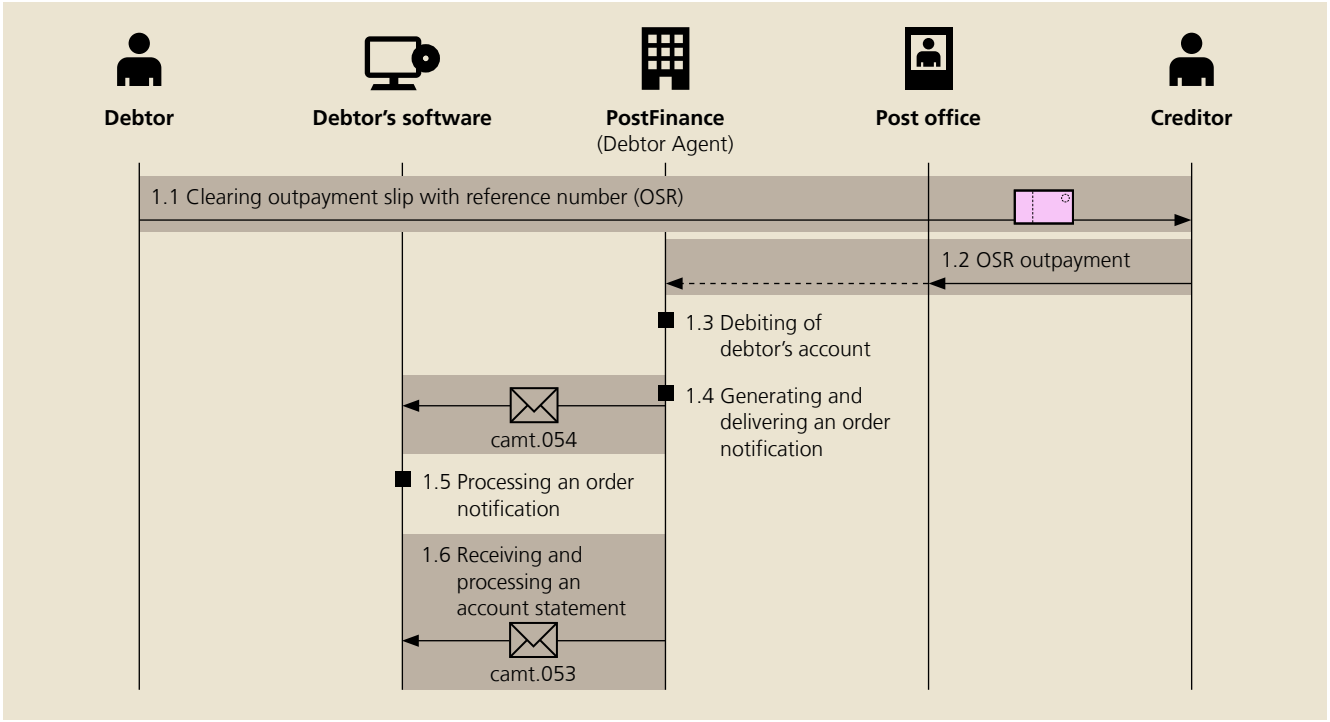


Brief description	The debtor settles a claim in foreign currency from a creditor abroad (excl. EU countries).
Preconditions	The creditor has sent a claim in foreign currency to the debtor for settlement.
Main process	**1.1 Receiving a claim in foreign currency** The debtor receives the information from a creditor abroad (excl. EU countries) to settle a claim in USD. **1.2 Recording an international payment** The debtor records the payment in his accounts payable, referencing the CHF account to be debited, amount and currency of payment, creditor's address and proprietary account number, charging option (SHAR, CRED or DEBT), messages to the creditor, creditor's financial institution (BIC) and the requested execution date. **1.3 Generating a payment file** The debtor uses accounts payable to generate a payment file (pain.001), which includes the recorded payment. Each payment is given a reference (end-to-end reference) by the accounts payable system, which shall remain unique for an indefinite period. Payments with the same currency (in this case USD), the same debit account and the same requested execution date are combined into one payment order; debit notification (using camt.054) with details (CWD) should be selected.

	1.4 Submitting a payment file The debtor submits the payment file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]). **1.5 Checking a payment file** The financial institution performs the structural and technical check on the payment file and informs the debtor of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors. For this reason, only a status report (pain.002) which confirms the order with the status Accepted (ACCP) is generated. For a description of exceptional situations (status report with validation errors or warnings), please refer to use cases [30–33]. **1.6 Receiving a status report** The debtor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received. **1.7 Execution of payments and forwarding** On the requested execution date, the debtor's financial institution executes the payment, debits the debit account specified in pain.001, and forwards the payment to the creditor's financial institution. **1.8 Order notification** The financial institution generates an order notification in the form of a camt.054 and presents it to the debtor. **1.9 Receiving an order notification** The debtor's accounts payable system receives the order notification (camt.054) and tracks the status of the corresponding payments in his accounts payable based on the received status report. The order notification contains the entered amount in the account currency, including any exchange rate used, the accounts payable system tracks the debit item based on the entry made. **1.10 Generating an account statement** The financial institution informs the debtor about the entries made and the current account balance based on the account statement (camt.053), according to the periodicity requested by the customer. **1.11 Receiving an account statement** The debtor's accounts payable system receives the account statement (camt.053) and reconciles the executed payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance in the accounts payable system.
Alternative process	**2.1 Recording a domestic payment in foreign currency** Alternative step for: Recording an international payment (1.2) The creditor's financial institution is located within the country, however, the payment is recorded in the same way as in step 1.2. **2.2 Recording an international payment in CHF** Alternative step for: Recording an international payment (1.2) The creditor's financial institution is located abroad, payment shall be made in CHF. The payment is recorded in the same way as in step 1.2.

3.6 Execution of payment with outpayment slip (OSR) [16]

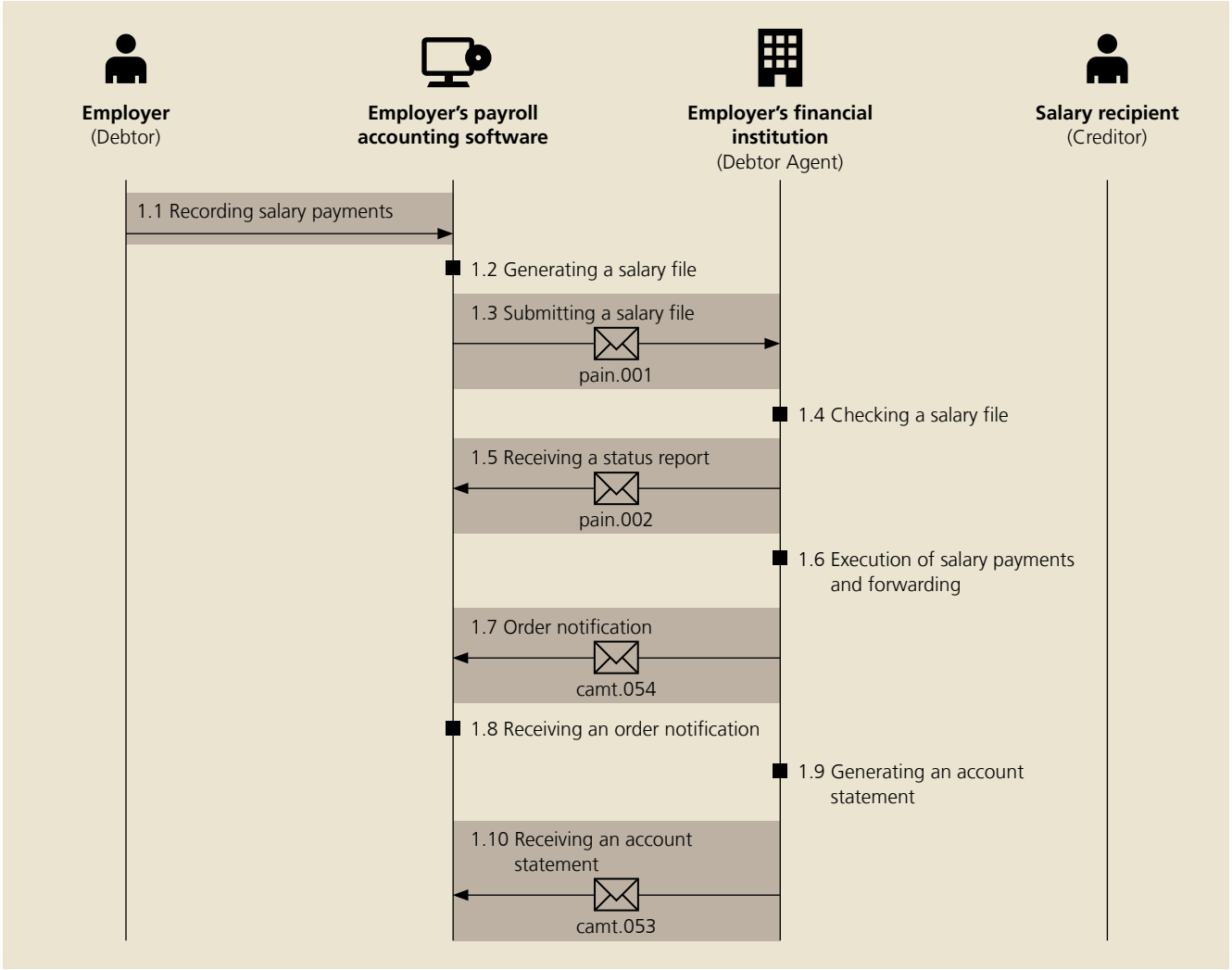
The PostFinance outpayment slip with reference number (OSR) is designed for CHF payments within Switzerland to creditors whose account or bank details are not known. Details on the OSR product are to be found in PostFinance's "OSR" manual (see [6]).



Brief description	Development of a payment to a creditor whose bank or account details are not known. The debtor adds an outpayment slip with reference number, that authorizes the creditor to make a cash withdrawal from a post office. After a successful outpayment, the debtor is informed, via an order statement, that the cash withdrawal has taken place and their account has been debited the corresponding amount.
Preconditions	The debtor has registered as a user of OSR with PostFinance and has given PostFinance an OSR participant number. The debtor has had an OSR preprint produced by one of the authorized printers, for the purposes of using the OSR service.
Main process	**1.1 Clearing outpayment slip with reference number (OSR)** The debtor states that they wish to make a payment to a beneficiary, whose bank details are not known. The debtor settles the payment using an outpayment slip with reference number (OSR). They fill out the amount and the beneficiary address in the outpayment slip with a pre-printed unique reference number (and the debtor's OSR participant number). They enter the pre-printed reference number with the amount and the beneficiary address as open items in their accounts payable software. The fully-completed OSR is sent to the beneficiary by post. **1.2 OSR outpayment** The beneficiary receives the payment slip and cashes it in at a post office. The outpayment can be made in cash, or directly into the beneficiary's account. **1.3 Debiting of debtor's account** PostFinance uses the OSR participant number to identify and debit the appropriate account of the debtor. OSR debits with the same value date are combined in a batch entry.

	1.4 Generating and delivering an order notification (camt.054) According to the periodicity chosen by the debtor, PostFinance creates an order notification in the form of a camt.054 and sends it to the debtor via their preferred channel. OSR payments with the same value date are thereby combined in the batch booking (see step 1.3), and included as a C level of the camt.054. The details of individual OSR slips are shown at the D level of the camt.054. **1.5 Processing an order notification** The debtor's accounts payable software processes the delivered camt.054. Using the reference number, the software identifies the corresponding open items and finalizes them. **1.6 Receiving and processing an account statement (camt.053)** On the basis of the periodicity chosen by the debtor, PostFinance creates an account statement in the form of a camt.053 and sends it to the debtor via their preferred channel. Each cleared batch booking (see step 1.3) is shown as a full payment with an entry at C level and is checked in the accounts payable software in this format. The account statement thus contains no other details on the individual OSR slips.
Alternative process	**2.1 Detailed notification with account statement (camt.054)** Alternative steps for: Creating and sending order notification (camt.054) (steps 1.4–1.6) The debtor does not want a detailed notification via camt.054, but wants the details of the individual OSR payments as a part of their account statement. The account statement (camt.053) contains a C level for the total amount of OSR payments on a given day. In addition to the total payments at the C level, the transaction details (OSR slips) are given in the D level of the camt.053. The accounts payable software finalizes the open items using the information at the D level and reconciles the account using the total amounts.

3.7 Execution of salary payments [20]



Brief description	The employer makes salary payments.
Preconditions	The salary recipient has a salary claim with the employer. The salary recipient's address details and IBAN are known.
Main process	**1.1 Recording salary payments** The employer records the salary payment in his payroll accounting software, referencing the account to be debited, salary recipient's address and IBAN, the unstructured creditor reference, salary recipient's financial institution (BC), the amount in CHF and the requested execution date. The payment is standardized by the recorder as a salary payment. **1.2 Generating a salary file** The employer uses payroll accounting software to generate a salary file (pain.001), which includes the recorded salary payments. Each salary payment is given a reference (end-to-end reference) by the payroll accounting system, which shall remain unique for an indefinite period. Payments with salary standardization, the same currency, the same debit account and the same requested execution date are combined into one salary payment order. For salary payments we recommend a batch direct debit via "batch booking = true", to ensure maximum discretion in the account notification (camt.053). The CND option is recommended for order notification (camt.054). **1.3 Submitting a salary file** The employer submits the salary file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]).

1.4 Checking a salary file
The financial institution performs a structural and technical check on the salary file and informs the employer of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors. For this reason, only a status report (pain.002) which confirms the order with the status Accepted (ACCP) is generated. For a description of exceptional situations (status report with validation errors or warnings), please refer to use cases [30–33].

1.5 Receiving a status report
The employer's payroll accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received.

1.6 Execution of salary payments and forwarding
On the requested execution date, the employer's financial institution executes the salary payment, debits the debit account specified in pain.001, and forwards the salary payment to the salary recipient's financial institution.

1.7 Order notification
The financial institution generates an order notification in the form of a camt.054 and presents it to the debtor.

1.8 Receiving an order notification
The debtor's accounts payable system receives the single notification (camt.054) and tracks the status of the corresponding payment in his accounts payable based on the status report received.
The order notification contains the entered amount in the account currency, the accounts payable system tracks the debit item based on the successful entry.

1.9 Generating an account statement
The financial institution informs the employer about successful entries and the current account balance based on the account statement (camt.053), according to the periodicity requested by the client.

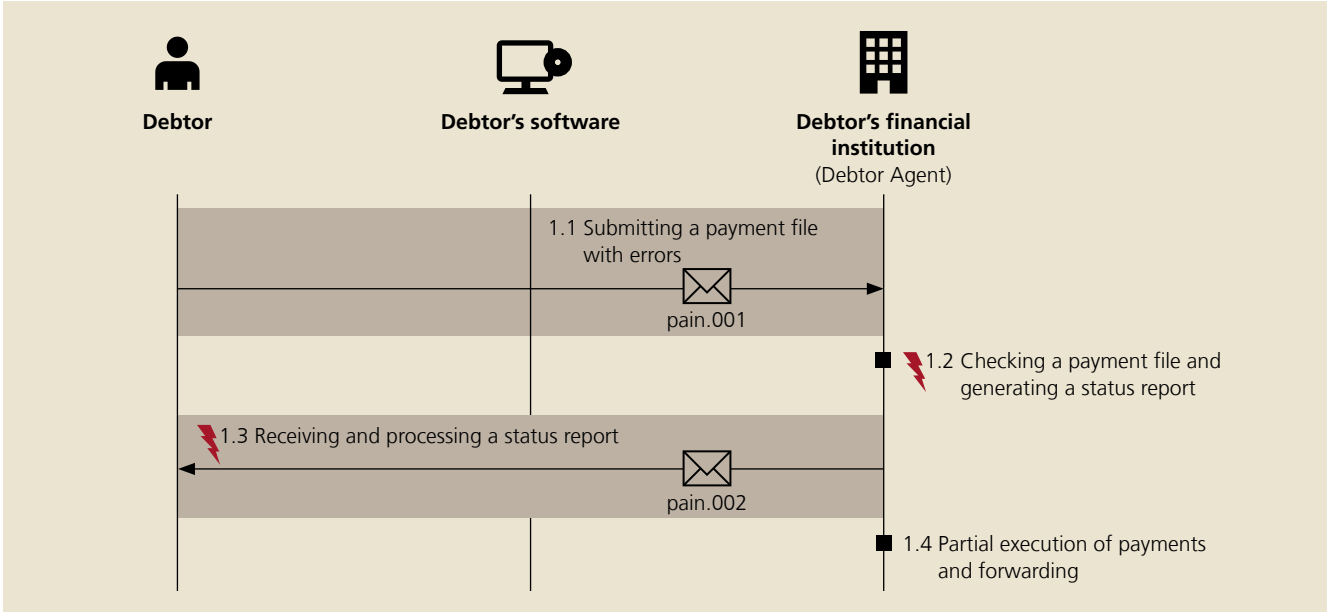
1.10 Receiving an account statement
The employer's accounting software receives the account statement (camt.053) and reconciles the executed salary payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance.

3.8 Uses cases for exceptional processes

In the following use cases [30–34] the exceptional processes (error treatment) are described. The exceptional situations differ regarding the time of the error in the process and in who establishes the error (the debtor's or creditor's financial institution).

	Debtor	Debtor's financial institution	Creditor's financial institution	Creditor
Submission and status report	The payment file submitted by the debtor cannot be processed due to technical or content errors **[30].** The payment orders submitted by the debtor are accepted by the financial institution with changes **[31].**			
Execution and order notification	The payments accepted by the debtor's financial institution cannot be processed at the time of execution **[32].**			
Processing and posting	A payment that has been executed and forwarded cannot be assigned to a creditor by his financial institution and will be returned to the debtor **[33].**			
Credit and notification for the creditor	The payment has been credited to the creditor's account. The creditor cannot assign the entry to any open accounts receivable items within his accounts receivable management. He contacts his financial institution which returns the payment **[34].**			

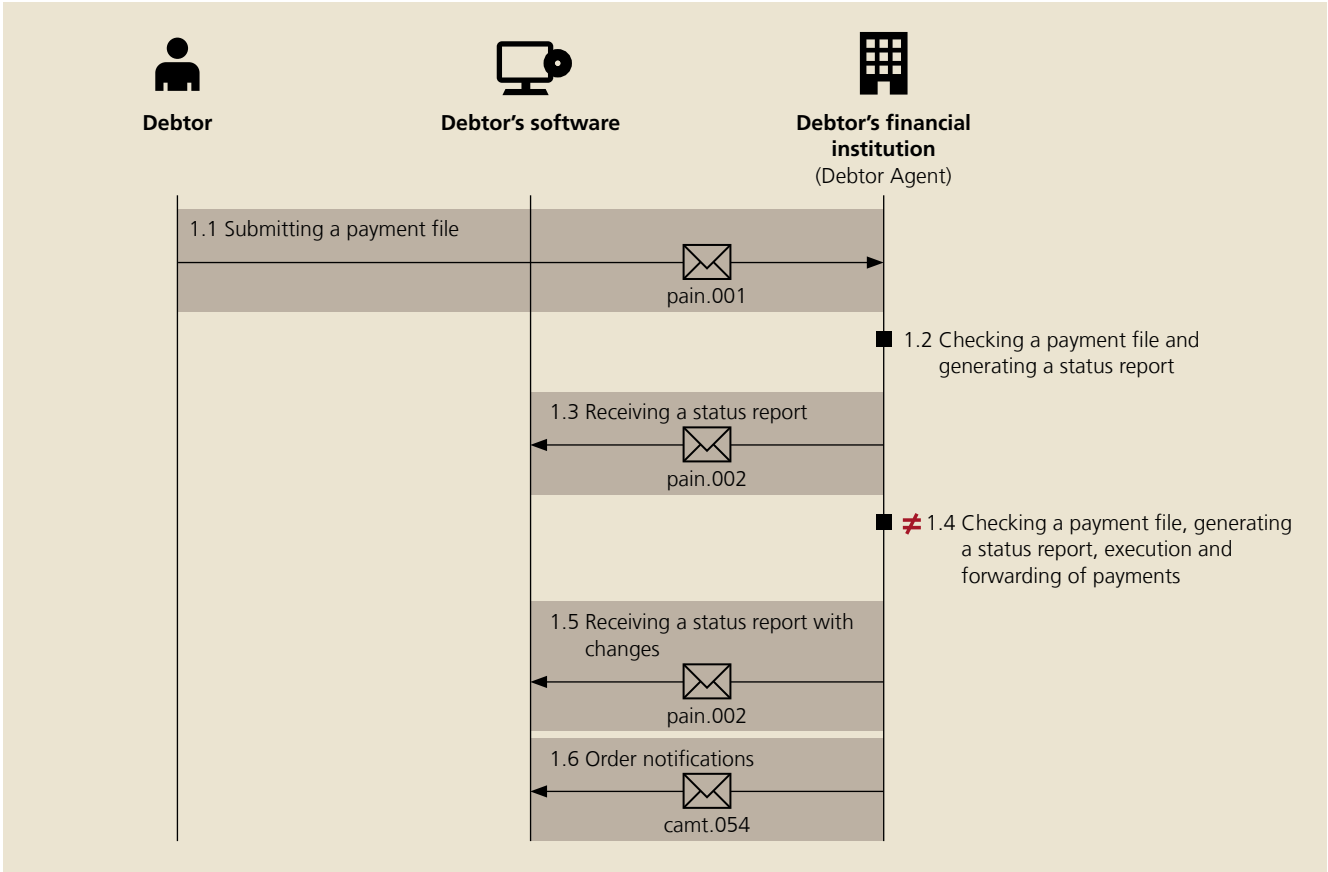
3.9 Processing notifications of incorrect payment orders [30]



Brief description	The debtor submits a payment file that cannot be processed by the financial institution. The financial institution informs the debtor that individual payments submitted for execution cannot be processed.
Preconditions	The debtor has used his software to record payments and generate a payment file.
Main process	**1.1 Submitting a payment file with errors (C level)** The debtor submits the payment file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]). **1.2 Checking a payment file and generating a status report** – The debtor's financial institution checks the accuracy of the technical and information content in the payment file (A, B and C level), and determines that a field on C level has not been filled in correctly. – The debtor's financial institution generates a status report (pain.002), acknowledging receipt of the payment file and informing the debtor that a single payment (C level) for a payment order (B level) has not been submitted correctly. – Payment orders which contain both correct and erroneous payments, are ticketed at the payment order level (B level) with a pain.002 message with the status Partially Accepted (PART). In addition, the pain.002 contains details of every erroneous payment. **1.3 Receiving and processing a status report** The debtor's software receives the status report from the financial institution and marks the incorrect payments as not executed. The non-executed payments are shown to the debtor. **1.4 Partial execution of payments and forwarding** The financial institution executes the payments which it has previously acknowledged positively with the status report, and confirms the debit using camt.054.
Alternative process	**2.1 Submitting a payment file with errors (B level)** Alternative step for: Submitting a payment file with errors (C level) (1.1) The submitted payment file contains an order (B level), which refers to a debtor's account, which is not approved as a debit account. The financial institution generates only one bulletin of verification for the whole of the B level, stating that the whole order (and therefore all associated payments on C level) cannot be executed. Erroneous payment orders are returned with the status Rejected (RJCT). **2.2 Submitting a duplicate payment file (error on A level)** Alternative step for: Submitting a payment file with errors (C level) (1.1) The submitted payment file has been submitted once already by the debtor and is recognized as a duplicate due to the message ID being used twice. The financial institution generates a bulletin of verification (pain.002) with the status Rejected (RJCT) for the entire cancelled payment file.

3.10 Notification of changes to payment orders [31]

The procedure described in this use case describes a payment file that has been submitted both professionally and technically correct. However, the financial institution is not able to process the order as requested. Rather than rejecting the order completely, the financial institution makes the necessary changes and informs the debtor of the changes. The financial institution may, for example, correct the requested execution date.

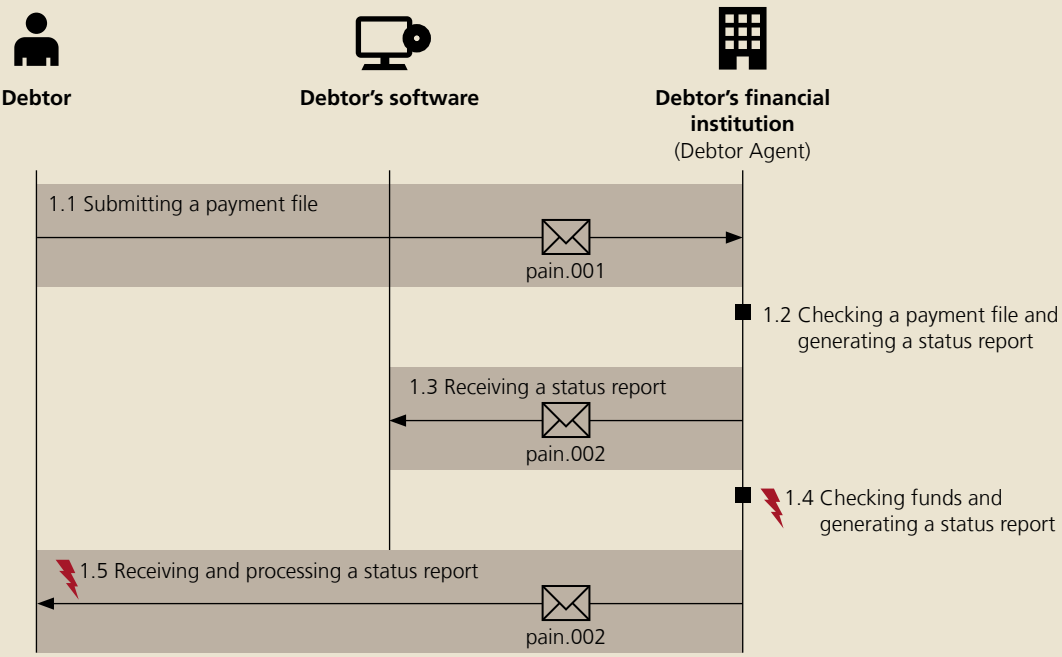


Brief description	The debtor submits payment orders that cannot be executed on the requested day (for example, if the debtor requests an execution date which does not match a bank working day).
Preconditions	The debtor has used his software to record payments, and generate and successfully submit a payment file to the financial institution.
Main process	**1.1 Submitting a payment file** The debtor submits the payment file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]). **1.2 Checking a payment file and generating a status report** The financial institution performs a structural and technical check on the payment file and informs the debtor of the result in a status report (pain.002). Error-free orders are confirmed upon issue with the status Accepted (ACCP). **1.3 Receiving a status report** The debtor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received.

	1.4 Checking a payment file, generating a status report, execution and forwarding of payments At the time of execution, the financial institution checks the payment file and determines that the requested processing date does not match a valid bank working day. The affected payments are scheduled by the financial institution to the next possible execution date. **1.5 Receiving a status report with changes** The financial institution uses a status report (pain.002) to notify the debtor that it has accepted the orders with changes, with the status Accepted with Change (ACWC). The financial institution accordingly executes the various payments and forwards them. **1.6 Order notifications** The financial institution informs the debtor using an order notification (camt.054).
Deferrals	In certain cases, notifications are also generated when payment orders are changed using pain.002 (Accepted with Change) after execution (for more information, please refer to PostFinance's "EPO" manual [4]).

3.11 Error handling for payment orders with insufficient funds [32]

The procedure described in this use case describes how a payment order has been checked successfully on submission, but at the time of execution cannot be processed by the financial institution. The special exceptional situation of insufficient funds is selected here as probably the most common error pattern, but there are other possible reasons why a payment order is not recognized as non-executable until the time of execution.

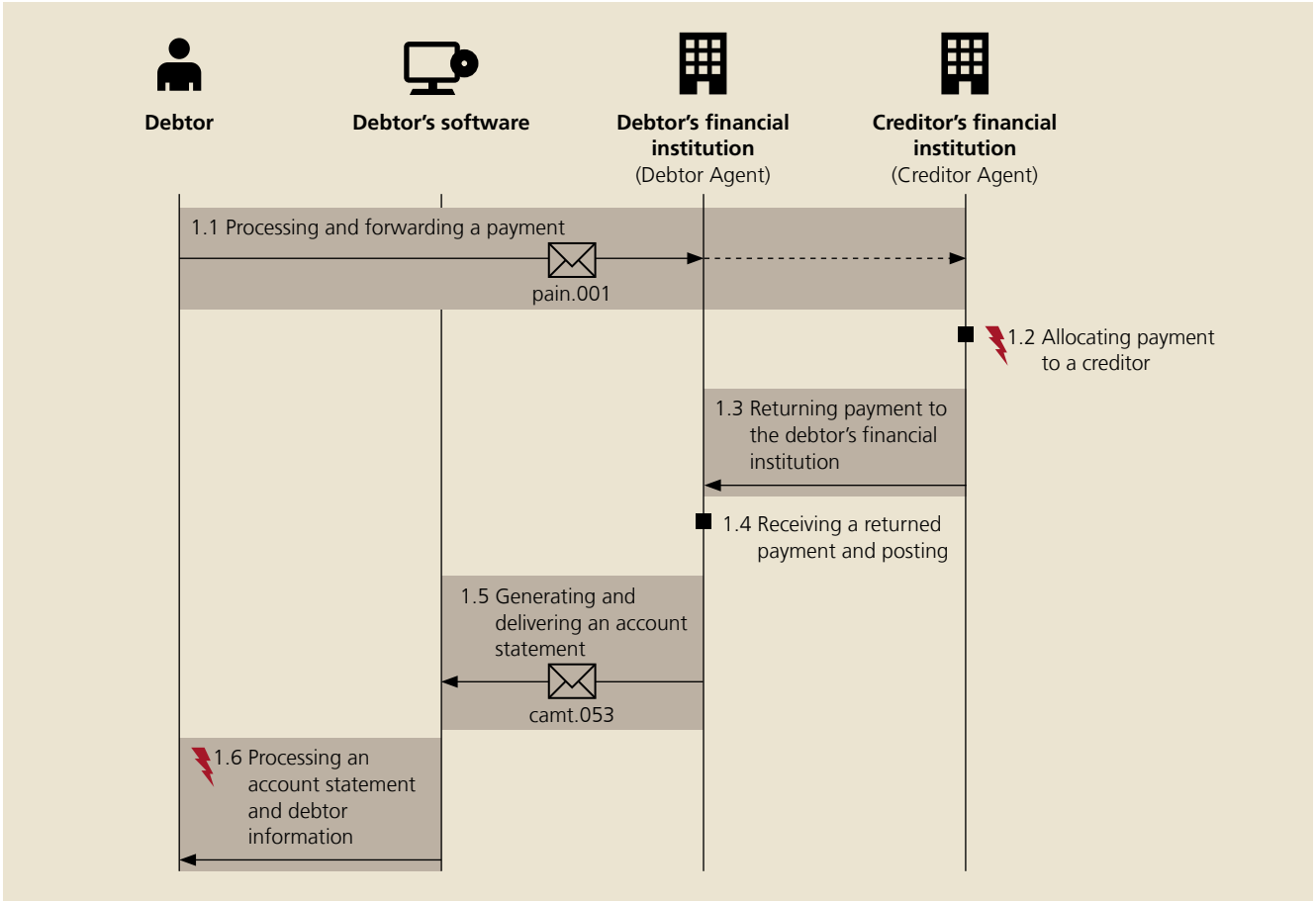


Brief description	The debtor submits a payment file that is checked successfully by his financial institution. At the time of execution, the financial institution checks the payment and determines that it cannot be executed due to insufficient funds. The debtor is informed that the payment has not been executed.
Preconditions	The debtor has used his software to record payments, and generate and successfully submit a payment file to the financial institution.
Main process	**1.1 Submitting a payment file** The debtor submits the payment file (pain.001) to his financial institution, taking into account the regulatory framework (in accordance with PostFinance's "EPO" manual [4]). **1.2 Checking a payment file and generating a status report** The financial institution checks the payment file and informs the debtor of the result (successful check) with a status report (pain.002). **1.3 Receiving a status report** The debtor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payment in the accounts payable system based on the information received. **1.4 Checking funds and generating a status report** At the time of execution, the financial institution checks if the payment orders can be executed, and determines that they cannot be executed as requested. In this case the entire payment order is cancelled. The financial institution generates a status report (pain.002) and informs the debtor that the payment orders could not be executed due to insufficient funds.

	1.5	**Receiving and processing a status report** The debtor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments as "not executed" in the accounts payable system based on the information received. The software informs the debtor that the payments have not been executed.
Alternative process	**2.1**	**Multiple debit** Alternative step for: Checking funds and generating a status report (1.4) If the funds check is not successful, the financial institution tries to execute the payment on the following days. The debtor receives a status report (pain.002) after the first unsuccessful attempt to execute the payment. Once the maximum number of attempts is reached, the process ends with cancellation of the order (pain.002).

3.12 Returning a payment with an unknown recipient [33]

The use of structured creditor addresses increases the accuracy of allocation of payments at the creditor's financial institution. For this reason, the structured form should always be used to provide address details. Nevertheless, it is possible that the financial institution cannot establish an appropriate creditor and must return the payment.



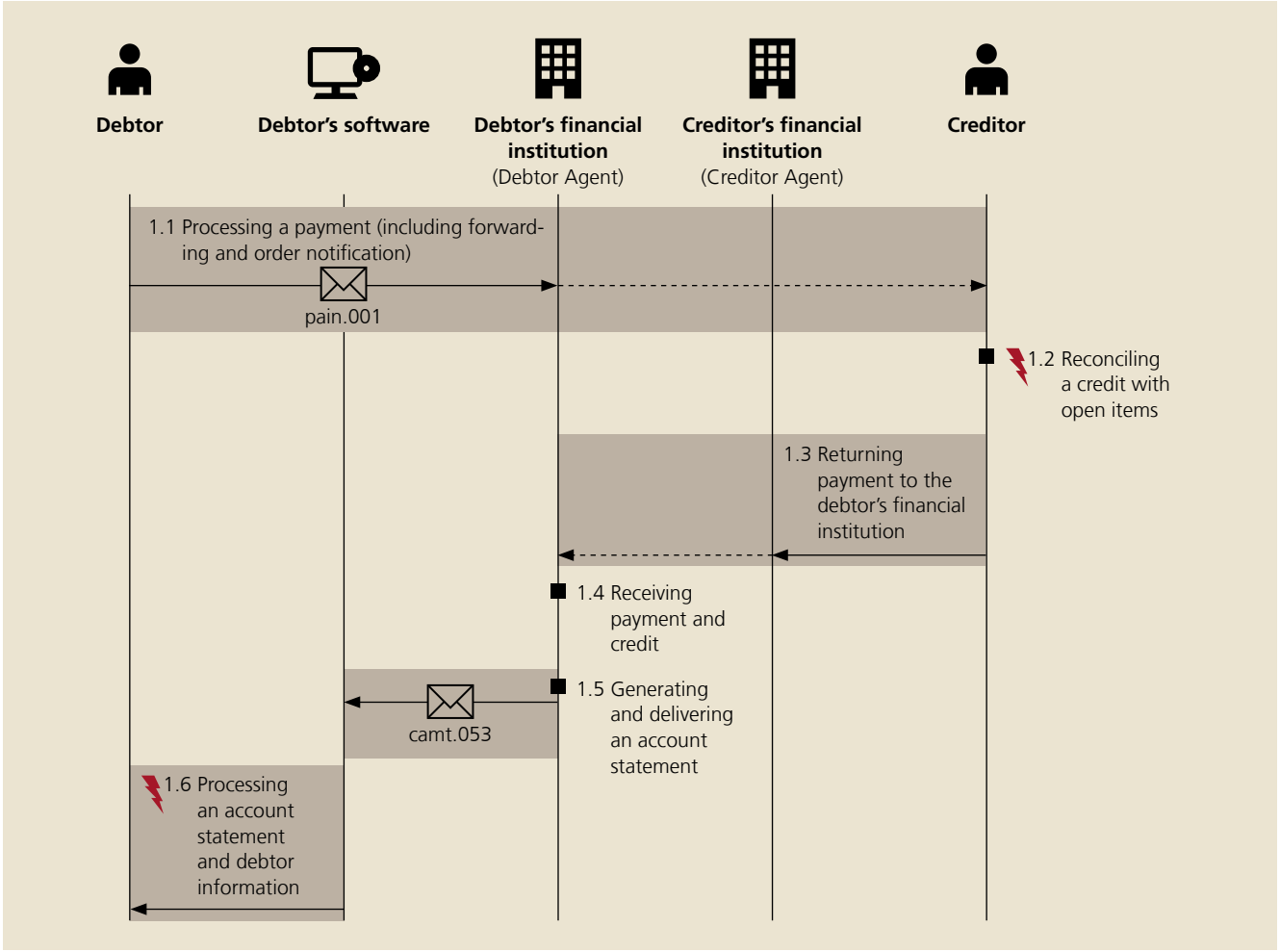
Brief description	A payment is processed completely from the perspective of the debtor. The creditor's financial institution cannot assign the received payment to any creditor and returns the payment.
Preconditions	The debtor has used his software to record payments, and generate and successfully submit a payment file to the financial institution. The debtor's financial institution has successfully forwarded the payment.
Main process	**1.1 Processing and forwarding a payment** The debtor submits payments to his financial institution. After checking and executing the payments, the financial institution forwards them to the creditor's financial institution. **1.2 Allocating payment to a creditor** The creditor's financial institution tries to assign the payment to a creditor based on the creditor details (IBAN and structured address). The financial institution cannot find a creditor in its customer base whose details sufficiently match those provided in the information received. **1.3 Returning payment to the debtor's financial institution** The creditor's financial institution returns the payment and uses the originally assigned reference (end-to-end reference).

1.4 Receiving a returned payment and posting
The debtor's financial institution receives the credit and assigns the payment to the original debtor (the payment initiator).

1.5 Generating and delivering an account statement
The original debtor's financial institution generates an account statement (camt.053) according to the customer's requested periodicity, and presents it to the original debtor. The account statement contains the returned payment as a credit.

1.6 Processing an account statement and debtor information
The debtor's software processes the account statement (camt.053) and recognizes it as a returned payment, based on the detailed information provided. The standardization of the returned payment corresponds to the bank transaction code: PMNT ICDT RRTN. Based on the end-to-end reference, it assigns the credit to the original payment and informs the debtor that the corresponding payment could not be processed properly.

3.13 Returning a misdirected payment [34]



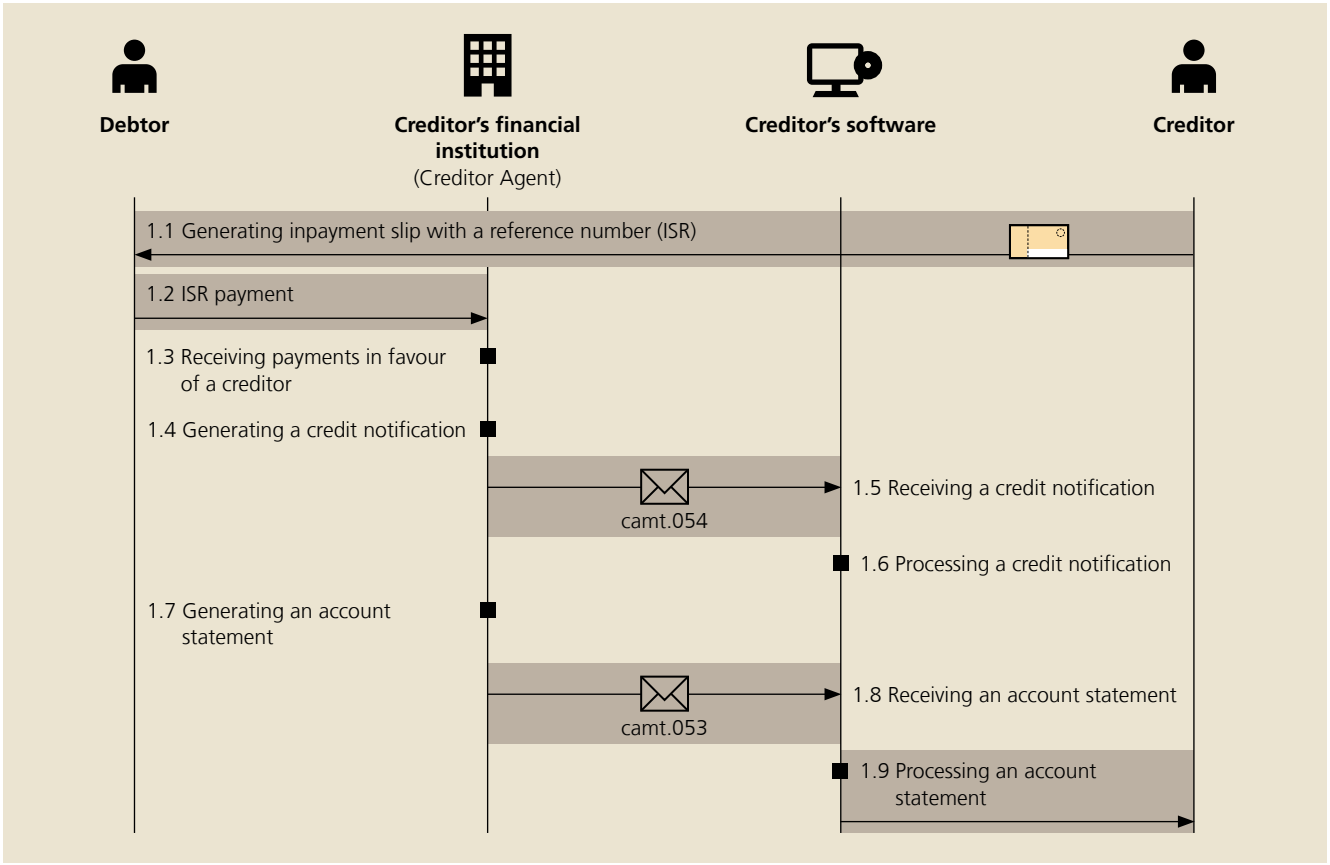
Brief description	A payment is processed completely from the perspective of the debtor, his financial institution and the creditor's financial institution. The recipient (or his payment software) cannot assign the received payment to any of his open items and returns the payment to the original debtor.
Preconditions	The debtor has used his software to record payments, and generate and successfully submit a payment file to the financial institution. The debtor's financial institution has successfully forwarded the payment. The creditor's financial institution has received the payment and forwarded it to the creditor.
Main process	**1.1 Processing a payment (including forwarding and order notification)** The debtor submits the payment and the debtor's and creditor's financial institutions process the payment, so that the payment is finally posted to the creditor's account. **1.2 Reconciling a credit with open items** The creditor attempts to assign the payment to one of his open items, but cannot find any open items that correspond. He decides to return the payment, and contacts his financial institution to do so. **1.3 Returning payment to the debtor's financial institution** At the creditor's request, the financial institution returns the payment to the original debtor. The financial institution does this using the end-to-end reference that was used by the original debtor when it was submitted.

	1.4 Receiving payment and credit The returned payment is credited to the original debtor. **1.5 Generating and delivering an account statement** The financial institution generates an account statement in the periodicity requested by the client and presents it to the original debtor. **1.6 Processing an account statement and debtor information** The debtor's software processes the statement (camt.053). Due to standardization of the credit, the software recognizes it as a returned payment, and can assign the original credit based on the end-to-end reference. The software informs the debtor that a payment initiated by the debtor has been returned.

4. Accounts receivable process use cases

In the context of credits, there are two distinct groups of use cases: On the one hand, those involving the processing and booking of credits using inpayment slips (use cases 40, 41); and on the other, a group of use cases from the direct debit process, which are themselves divided into "good cases" (use cases 42–45) and exceptional processes (use cases 50–54).

4.1 Processing an ISR credit notification [40]



Brief description	The creditor receives ISR credits. The financial institution informs the creditor about the incoming payments via a credit notification.
Actors	Creditor Creditor's financial institution Creditor's accounting software Creditor's accounts receivable software
Preconditions	The creditor has sent the debtor an orange inpayment slip with reference number (ISR) for the settlement of the claims. The payments have been forwarded from the debtor's financial institution to the creditor's financial institution.
Main process	**1.1 Generating inpayment slip with a reference number (ISR)** The creditor presents the debtor with an inpayment slip with reference number for the purpose of settling an open claim. They allocate the reference to the open item in their accounts receivable software. **1.2 ISR payment** The debtor pays the claim, quoting the reference number.

1.3 Receiving payments in favour of a creditor
The financial institution receives ISR payments in favour of the creditor and credits them to the creditor.

1.4 Generating a credit notification
The financial institution generates credit notifications (camt.054) in the periodicity requested by the creditor and presents them to the creditor.

1.5 Receiving a credit notification
The creditor receives the credit notifications (camt.054) and forwards them to accounts receivable management for processing.

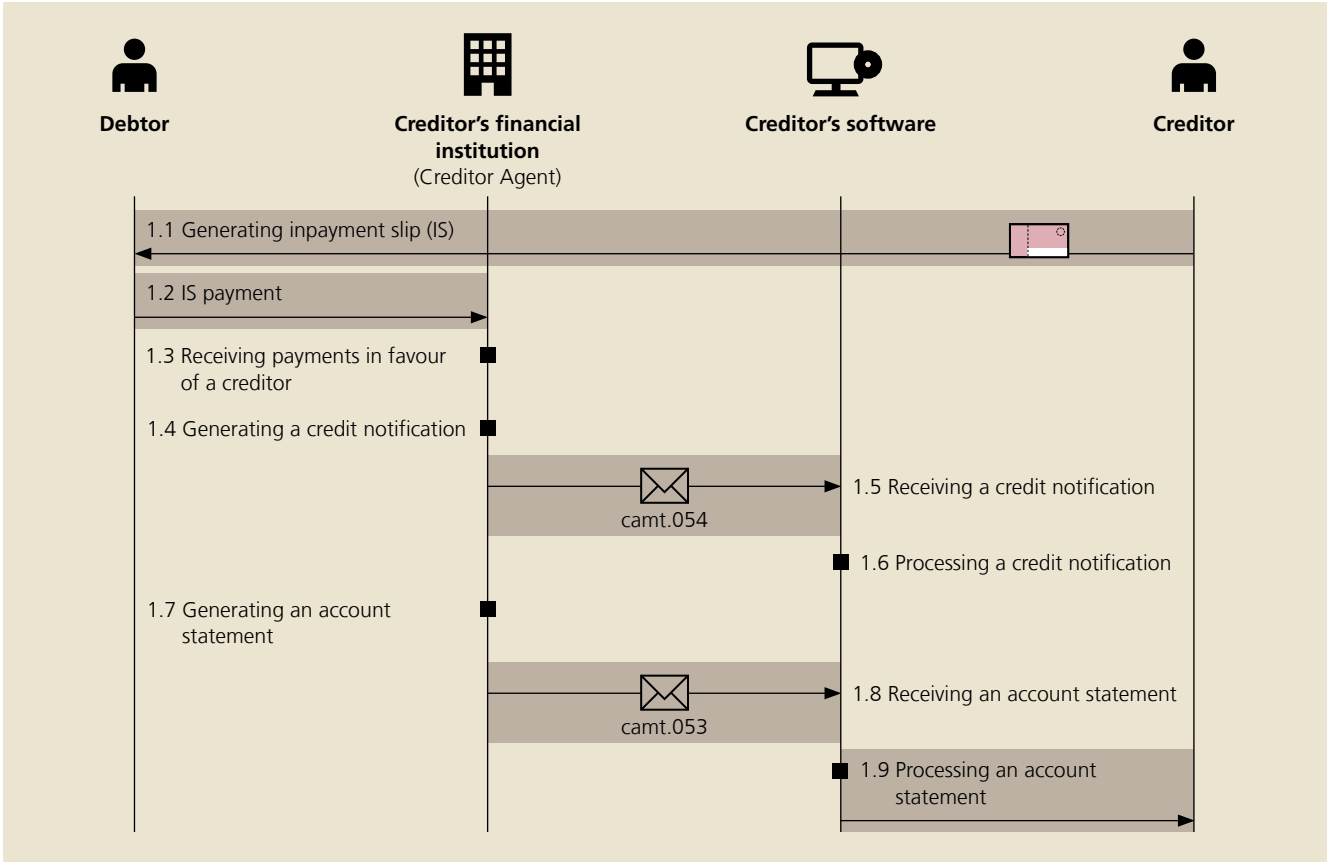
1.6 Processing a credit notification
The individual payments are processed in the creditor's accounts receivable software and allocated to the existing open items by means of the ISR references.
The detailed information on each incoming payment allows for any incurred charges and value dates etc. to be assigned correctly.

1.7 Generating an account statement
The financial institution generates the account statement in the periodicity requested by the creditor and presents it to the creditor.
ISR credits are collectively paid in one batch entry per day.

1.8 Receiving an account statement
The creditor receives the account statement and forwards it to his accounts department for processing.

1.9 Processing an account statement
The creditor's accounts department reconciles the account statement with the accounting software.

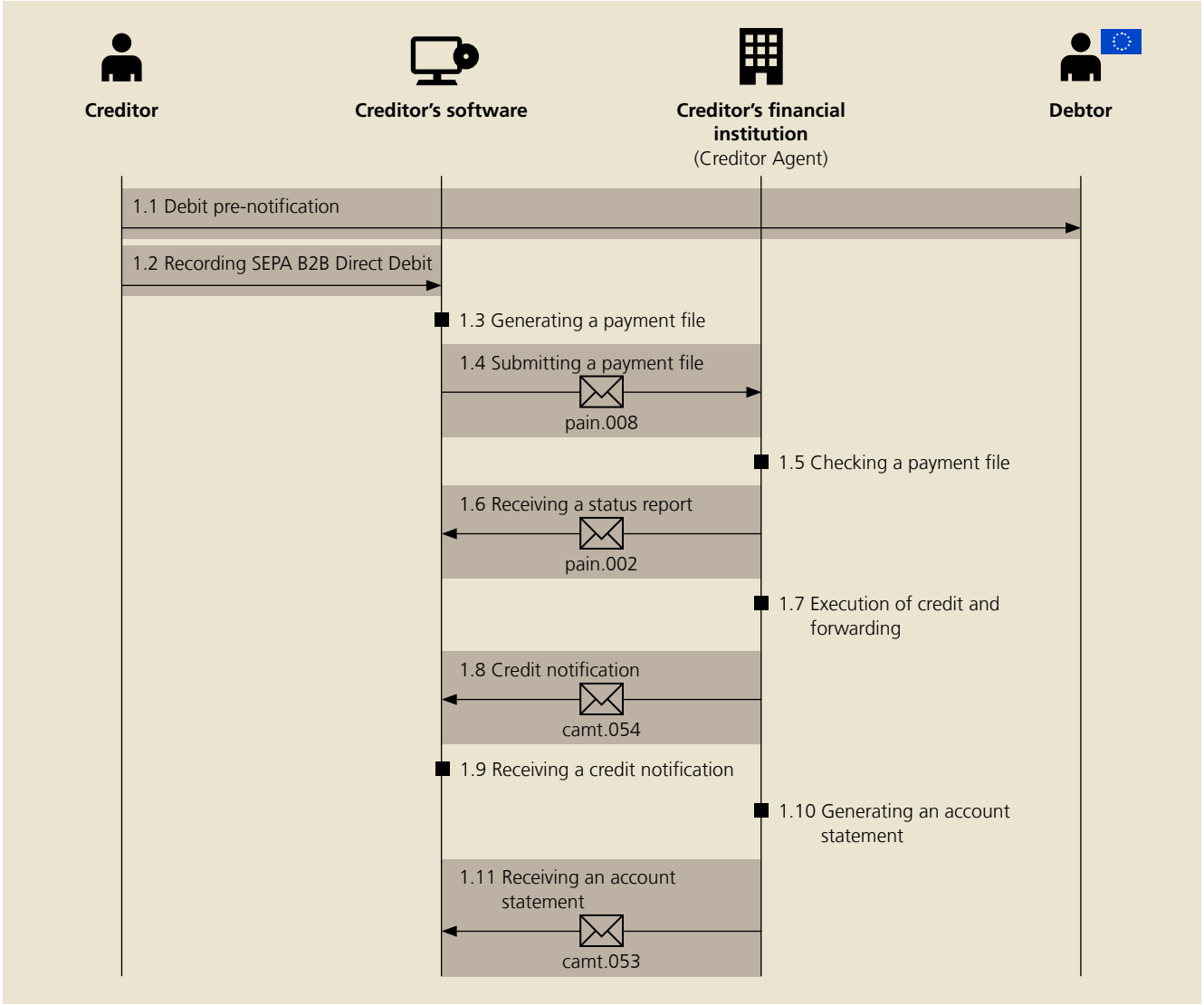
4.2 Processing an IS credit notification [41]



Brief description	The creditor receives IS credits. The financial institution informs the creditor about the incoming payments via a credit notification.
Actors	Creditor Creditor's financial institution Creditor's accounting software Creditor's accounts receivable software
Preconditions	The creditor has sent the debtor a red inpayment slip (IS) for the settlement of the claims. The payments have been forwarded from the debtor's financial institution to the creditor's financial institution. The debtor has recorded the payment electronically or the full recording service has been activated for the credited account.
Main process	**1.1 Generating inpayment slip (IS)** The creditor presents the debtor with an inpayment slip for the purpose of settling an open claim. **1.2 IS payment** The debtor pays the claim. **1.3 Receiving payments in favour of a creditor** The financial institution receives IS payments in favour of the creditor and credits them to the creditor. **1.4 Generating a credit notification** The financial institution generates credit notifications (camt.054) in the periodicity requested by the creditor and presents them to the creditor.

	1.5 Receiving a credit notification The creditor receives the credit notifications (camt.054) and forwards them to accounts receivable management for processing. **1.6 Processing a credit notification** The individual payments are processed in the creditor's accounts receivable software: Payments are allocated to the corresponding open items using the detailed information regarding the ordering customer and the message text. The detailed information on each incoming payment allows for any incurred charges and value dates etc. to be assigned. **1.7 Generating an account statement** The financial institution generates the account statement in the periodicity requested by the creditor and presents it to the creditor. IS credits may be paid individually or collectively in one batch entry per day. **1.8 Receiving an account statement** The creditor receives the account statement and forwards it to his accounts department for processing. **1.9 Processing an account statement** The creditor's accounts department reconciles the account statement with the accounting software.
Alternative process	**2.1 IS with slip images** Alternative step for: Processing a credit notification (1.6) If the debtor has not recorded the payment electronically (payments from post offices and payment orders [PO], neither information on the ordering customer nor message text are available in the credit file. The creditor can remove these details from the optional accompanying slip images.

4.3 Collection of a SEPA-DD Core Direct Debit in the SEPA area [42]



Brief description	A creditor collects claims in the SEPA area using the SEPA Core Direct Debit. They create a pain.008, receive the associated credit notification and the account statement, and book these in their accounts receivable software.
Preconditions	The creditor possesses a creditor ID as well as a valid debit mandate from the debtor. The creditor gives their own unique mandate reference for the mandate. The currency of the order and of the credit account must be EUR.
Main process	**1.1 Debit pre-notification** The creditor informs the debtor at the latest 14 days before the due date regarding the upcoming debit payment. This can for example be done by means of an invoice. **1.2 Recording SEPA Core Direct Debit** The creditor records a debit order in their accounts receivable software. **1.3 Generating a payment file** The creditor creates a payment file via accounts receivable (pain.008 under the current SEPA Direct Debit Implementation Guidelines).

1.4 Submitting a payment file
The creditor delivers the payment file (pain.008) to their financial institution, taking note of the delivery deadlines (at least six days before the due date of one-off and first direct debits; at least three days before the due date of recurrent and final direct debits).

1.5 Checking a payment file
The creditor's financial institution performs the structural and technical check on the payment file and informs the creditor of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors.

1.6 Receiving a status report
The creditor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payment based on the information received.

1.7 Execution of credit and forwarding
The creditor's financial institution forwards the direct debit to the debtor's financial institution and pays the creditor the amount on the due date in accordance with the gross accounting method.

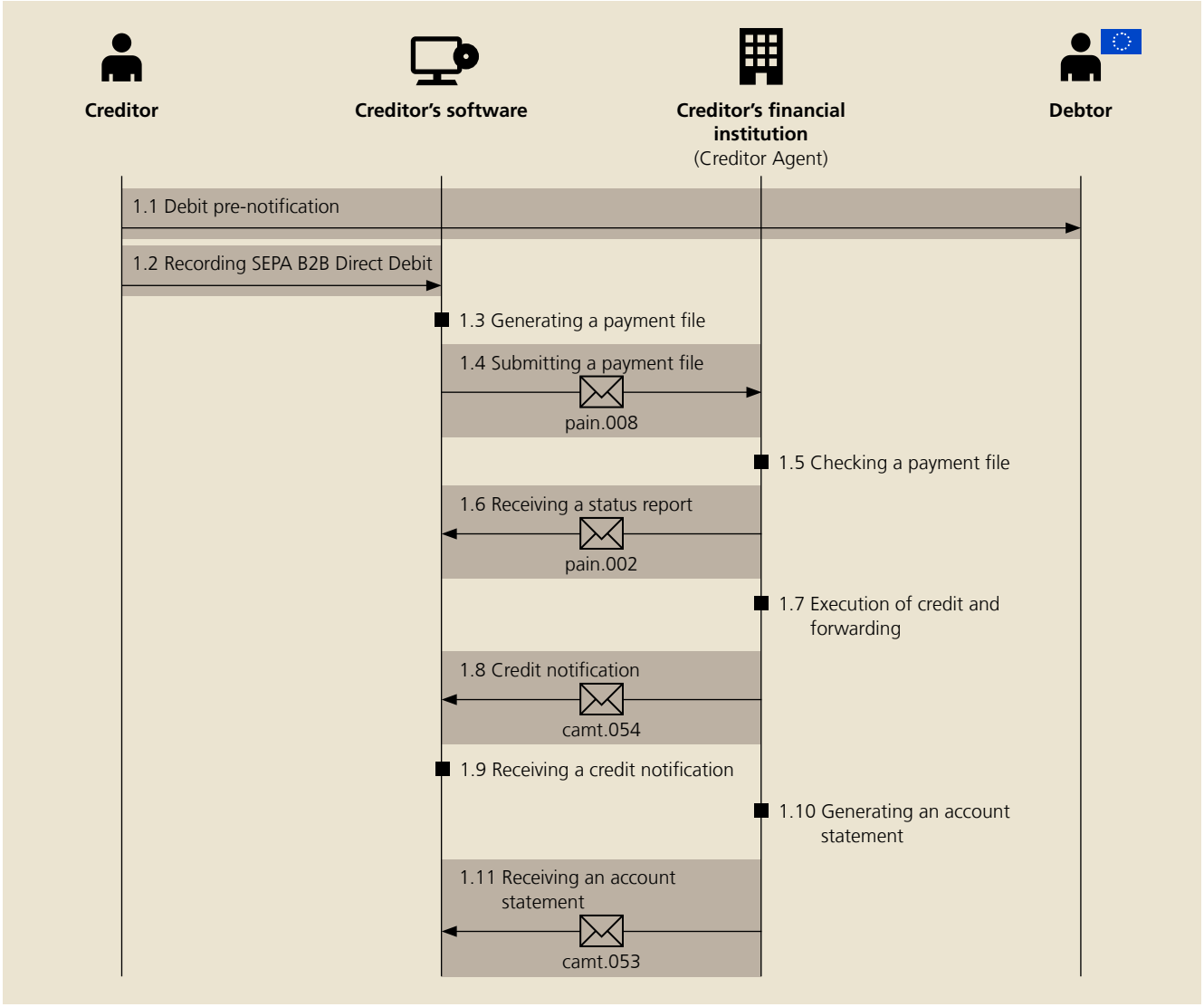
1.8 Credit notification
The creditor's financial institution generates a credit notification in the form of a camt.054 and presents it to the creditor.

1.9 Receiving a credit notification
The creditor's accounts receivable system receives the credit notification (camt.054) and tracks the status of the corresponding payment in his accounts receivable system based on the status report received.

1.10 Generating an account statement
The creditor's financial institution informs the creditor about the entries made and the current account balance based on the account statement (camt.053), according to the periodicity requested by the customer.

1.11 Receiving an account statement
The debtor's accounts receivable system receives the account statement (camt.053) and reconciles the executed payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance.

4.4 Collection of a SEPA-DD B2B Direct Debit in the SEPA area [43]



Brief description	A creditor collects claims in the SEPA area using the SEPA B2B Direct Debit. They create a pain.008, receive the associated credit notification and the account statement, and book these in their accounts receivable software.
Preconditions	The creditor possesses a creditor ID as well as a valid debit mandate from the debtor. The mandate information are held in the debtor's financial institution as an original or as a copy with a signed covering letter. For the mandate, the creditor gives their own unique mandate reference. The currency of the order and of the credit account must be EUR.
Main process	**1.1 Debit pre-notification** The creditor informs the debtor at the latest 14 days before the due date regarding the upcoming debit payment. This can for example be done by means of an invoice. **1.2 Recording SEPA B2B Direct Debit** The creditor records a debit order in their accounts receivable software. **1.3 Generating a payment file** The creditor creates a payment file via accounts receivable (pain.008 under the current SEPA Direct Debit Implementation Guidelines).

1.4 Submitting a payment file
The creditor delivers the payment file (pain.008) to their financial institution taking account of the delivery deadlines (at least two days before the due date).

1.5 Checking a payment file
The creditor's financial institution performs the structural and technical check on the payment file and informs the creditor of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors.

1.6 Receiving a status report
The creditor's accounting system processes the status report (pain.002) and tracks the status of the corresponding payment based on the information received.

1.7 Execution of credit and forwarding
The creditor's financial institution forwards the direct debit to the debtor's financial institution and pays the creditor this amount on the due date in accordance with the gross accounting method.

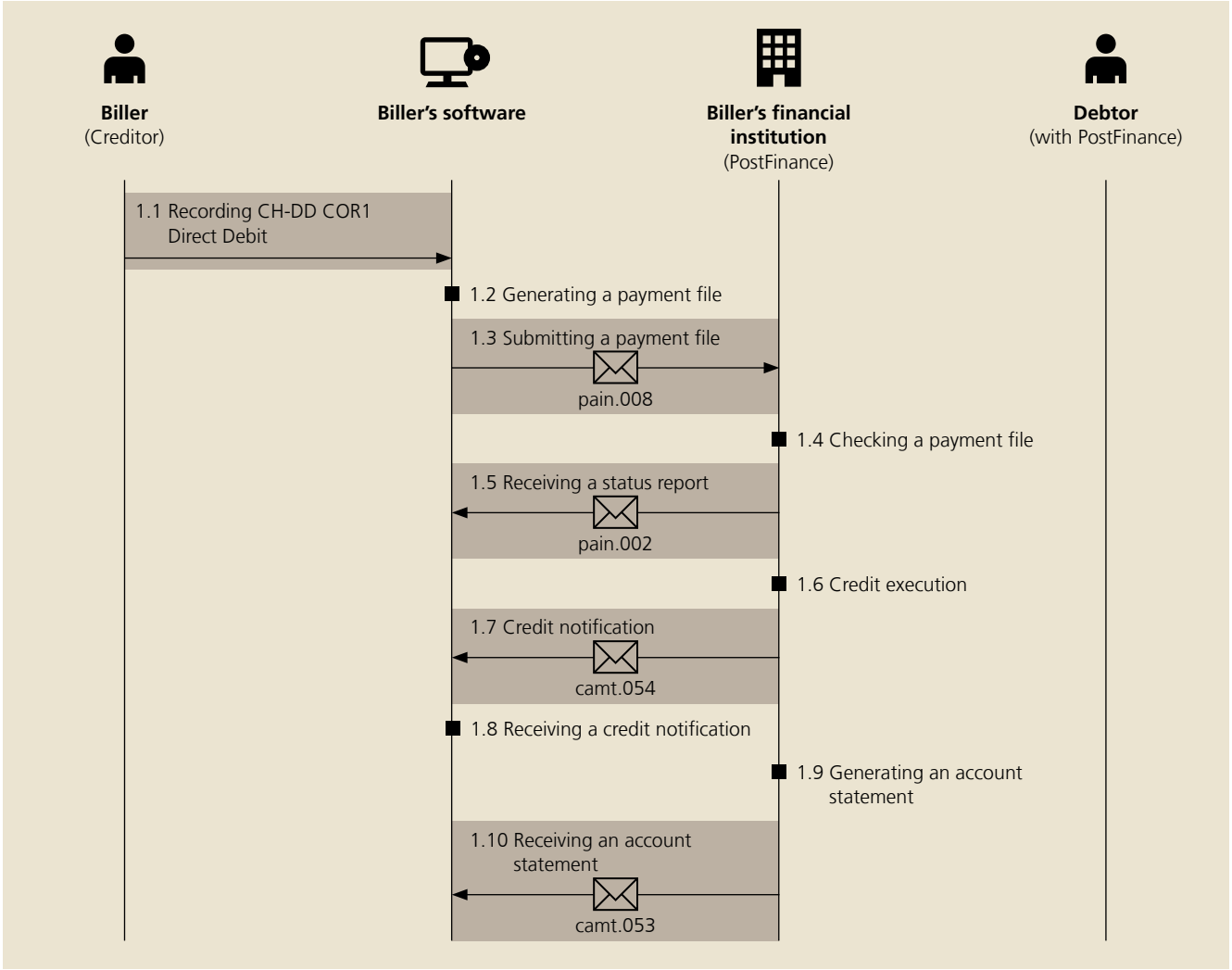
1.8 Credit notification
The financial institution generates a credit notification in the form of a camt.054 and presents it to the creditor.

1.9 Receiving a credit notification
The creditor's accounts receivable system receives the credit notification (camt.054) and tracks the status of the corresponding payment in his accounts receivable system based on the status report received.

1.10 Generating an account statement
The creditor's financial institution informs the creditor about the entries made and the current account balance based on the account statement (camt.053), according to the periodicity requested by the customer.

1.11 Receiving an account statement
The debtor's accounts receivable system receives the account statement (camt.053) and reconciles the executed payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance.

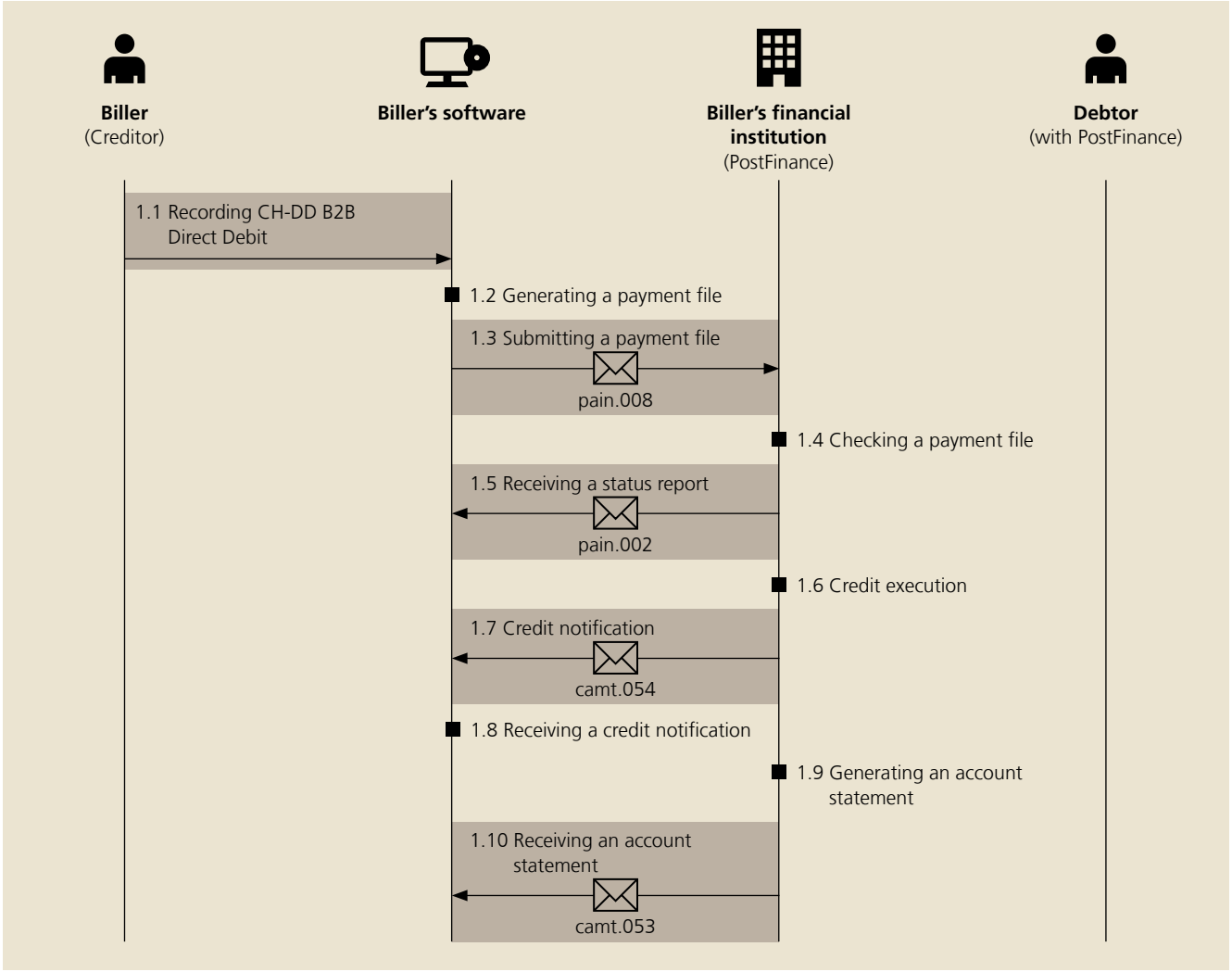
4.5 Collection of a CH-DD COR1 Direct Debit in CHF in Switzerland [44]



Brief description	A biller collects claims within PostFinance using a COR1 Direct Debit. They create a pain.008, receive the associated credit notification and the account statement, and book these in their accounts receivable software.
Preconditions	The biller possesses a payment authorization from the debtor as well as a creditor identification (RS-PID). The currency in the file must be the same as the currency in the credit account. The biller and debtor each have an account with PostFinance.
Main process	**1.1 Recording CH-DD COR1 Direct Debit** The biller records a direct debit order in their accounts receivable software. **1.2 Generating a payment file** The biller creates a payment file via accounts receivable (pain.008 under the current SEPA Direct Debit Implementation Guidelines). **1.3 Submitting a payment file** The biller delivers the payment file (pain.008) to PostFinance taking account of the delivery deadlines (at least one day before the due date). **1.4 Checking a payment file** PostFinance performs structural and technical checks on the payment file and informs the biller of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors.

	1.5 Receiving a status report The biller's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received. **1.6 Credit execution** PostFinance executes the direct debits and pays the biller the amount on the due date in accordance with the netting procedure. **1.7 Credit notification** PostFinance generates a debit notification in the form of a camt.054 and presents it to the biller. **1.8 Receiving a credit notification** The biller's accounts payable system receives the debit notification (camt.054) and tracks the status of the corresponding payment in his accounts payable based on the status report received. **1.9 Generating an account statement** PostFinance informs the biller about the entries made and the current account balance based on the account statement (camt.053), according to the periodicity requested by the customer. **1.10 Receiving an account statement** The biller's accounts payable system receives the account statement (camt.053) and reconciles the executed payments by standardizing the entries (bank transaction code), the entry date, the total amount, and the account balance.
Alternative process	**Currencies** The biller can alternatively also deliver direct debits in EUR. It should be noted that the files are to be delivered in one currency, i.e. do not mix currencies within one file. **Multiple debit attempts** The biller can opt for automated repetitions of debit attempts on the debtor's account if this cannot be completed on the due date. The biller has a choice of multiple debit attempts three and/or five days after the due date.

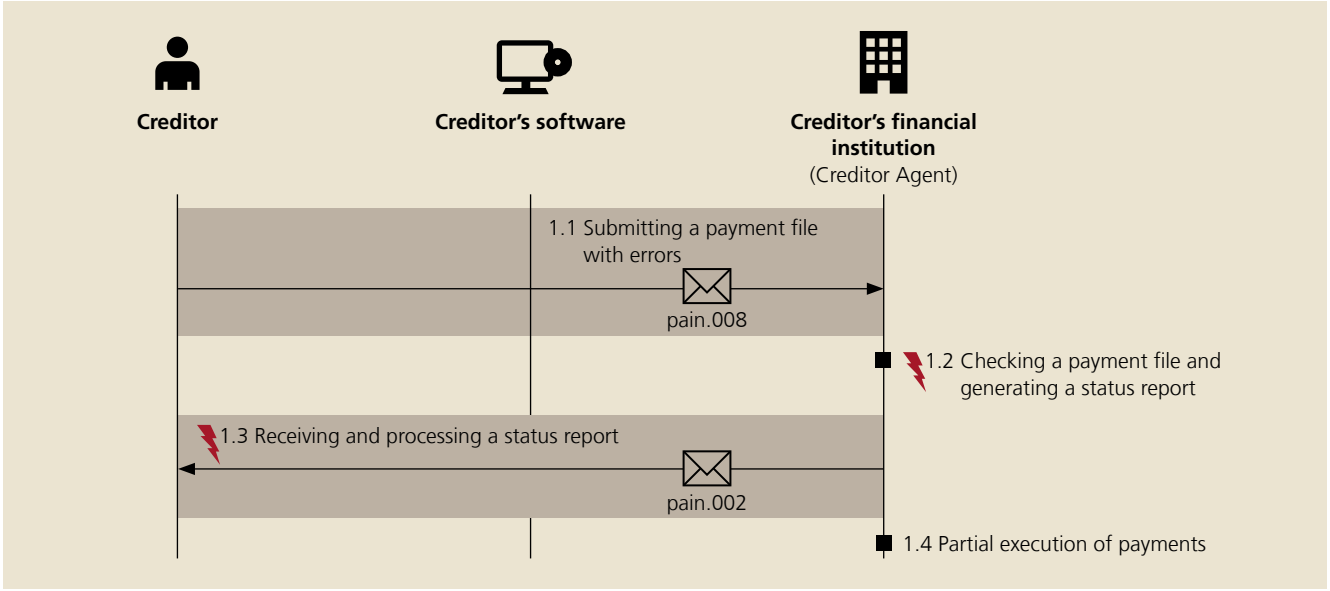
4.6 Collection of a CH-DD B2B Direct Debit in CHF in Switzerland [45]



Brief description	A biller collects receivables within PostFinance using a B2B Direct Debit. They create a pain.008, receive the associated credit notification and the account statement, and book these in their accounts receivable software.
Preconditions	The biller possesses a payment authorization from the debtor as well as a creditor identification (RS-PID). The payment authorization in original or copy with signed cover letter is held by PostFinance. The currency in the file must be the same as the currency in the credit account. The biller and debtor each have an account with PostFinance.
Main process	**1.1 Recording CH-DD B2B Direct Debit** The biller records a direct debit order in their accounts receivable software. **1.2 Generating a payment file** The biller creates a payment file via accounts receivable (pain.008 under the current SEPA Direct Debit Implementation Guidelines). **1.3 Submitting a payment file** The biller delivers the payment file (pain.008) to PostFinance taking account of the delivery deadlines (at least one day before the due date). **1.4 Checking a payment file** PostFinance performs the structural and technical check on the payment file and informs the biller of the result in a status report (pain.002). In the present use case, the entire order (B level) is free of errors.

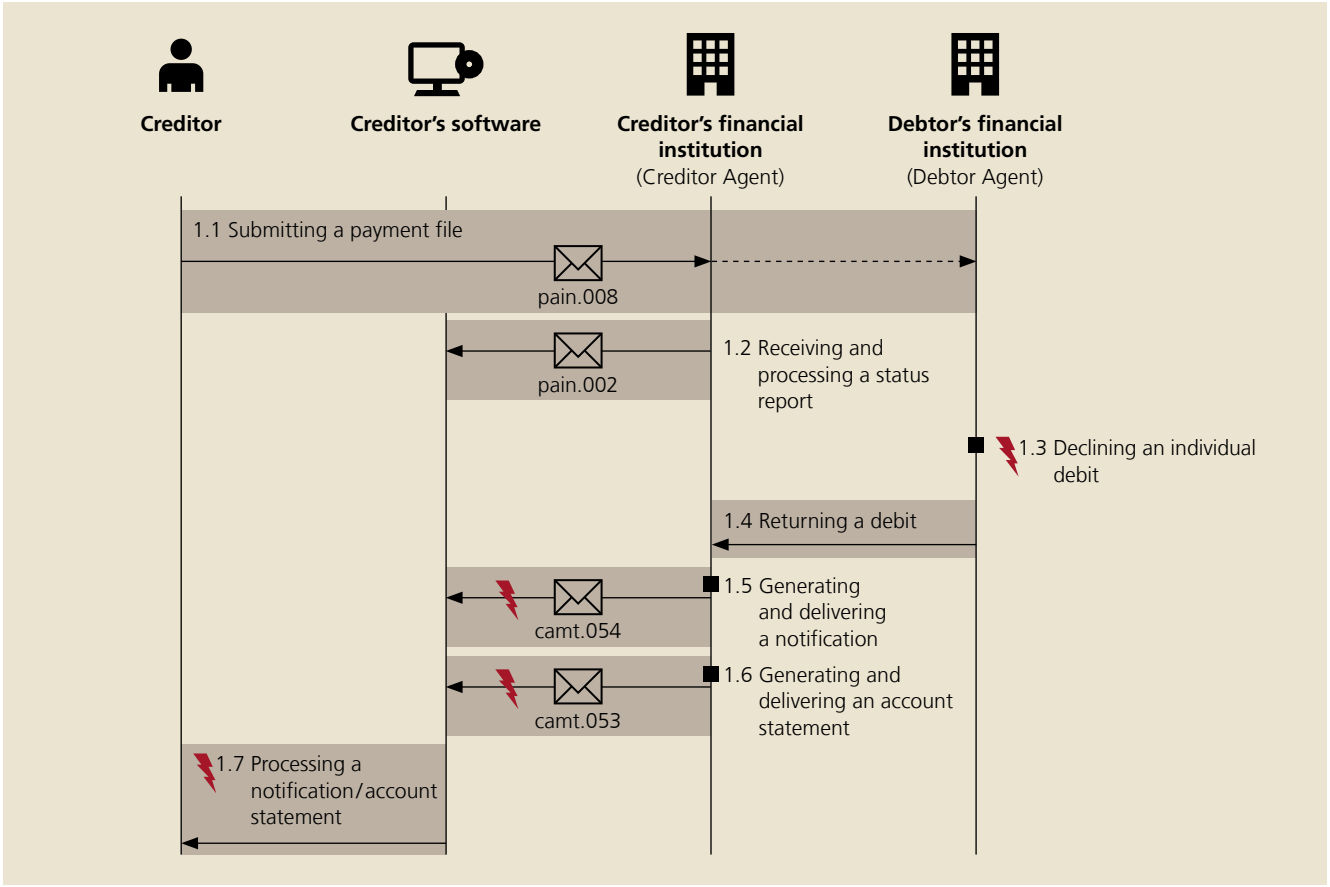
	1.5 Receiving a status report The biller's accounting system processes the status report (pain.002) and tracks the status of the corresponding payments based on the information received. **1.6 Credit execution** PostFinance executes the direct debits and pays the biller this amount on the due date in accordance with the netting procedure. **1.7 Credit notification** PostFinance generates a debit notification in the form of a camt.054 and presents it to the biller. **1.8 Receiving a credit notification** The biller's accounts payable system receives the debit notification (camt.054) and tracks the status of the corresponding payment in his accounts payable based on the status report received. **1.9 Generating an account statement** PostFinance informs the biller about the entries made and the current account balance based on the account statement (camt.053), according to the periodicity requested by the customer. **1.10 Receiving an account statement** The biller's accounts receivable system receives the account statement (camt.053) and reconciles the entered payments by standardizing the entries (bank transaction code), the entry date and the total amount.
Alternative process	The biller can alternatively also deliver direct debits in EUR. It should be noted that the files are to be delivered in one currency, i.e. do not mix currencies within one file.

4.7 SEPA-DD Reject on delivery [50]



Brief description	A creditor collects claims with SEPA Direct Debits which can only be partially processed by the creditor's financial institution. The financial institution informs the creditor that an entered debit cannot be processed, and executes the transactions which can be carried out.
Preconditions	The creditor has received a payment file (pain.008) with his accounts receivable software.
Main process	**1.1 Submitting a payment file with errors** The creditor delivers a payment file (pain.008 as per the valid Implementation Guidelines for SEPA Direct Debits) to their financial institution which indicates a specific error. **1.2 Checking a payment file and generating a status report** The creditor's financial institution performs a structural check on the payment file to test that its content is accurate, and determines that a field on C level has not been filled in correctly. The creditor's financial institution creates a status report (pain.002) which informs the creditor that a transaction (C level) in an order (B level) cannot be processed. **1.3 Receiving and processing a status report** The creditor's software receives the status report (pain.002) and marks the erroneous transaction as not executed. The creditor is shown the non-executed transaction. **1.4 Partial execution of payments** The creditor's financial institution executes the executable transactions.

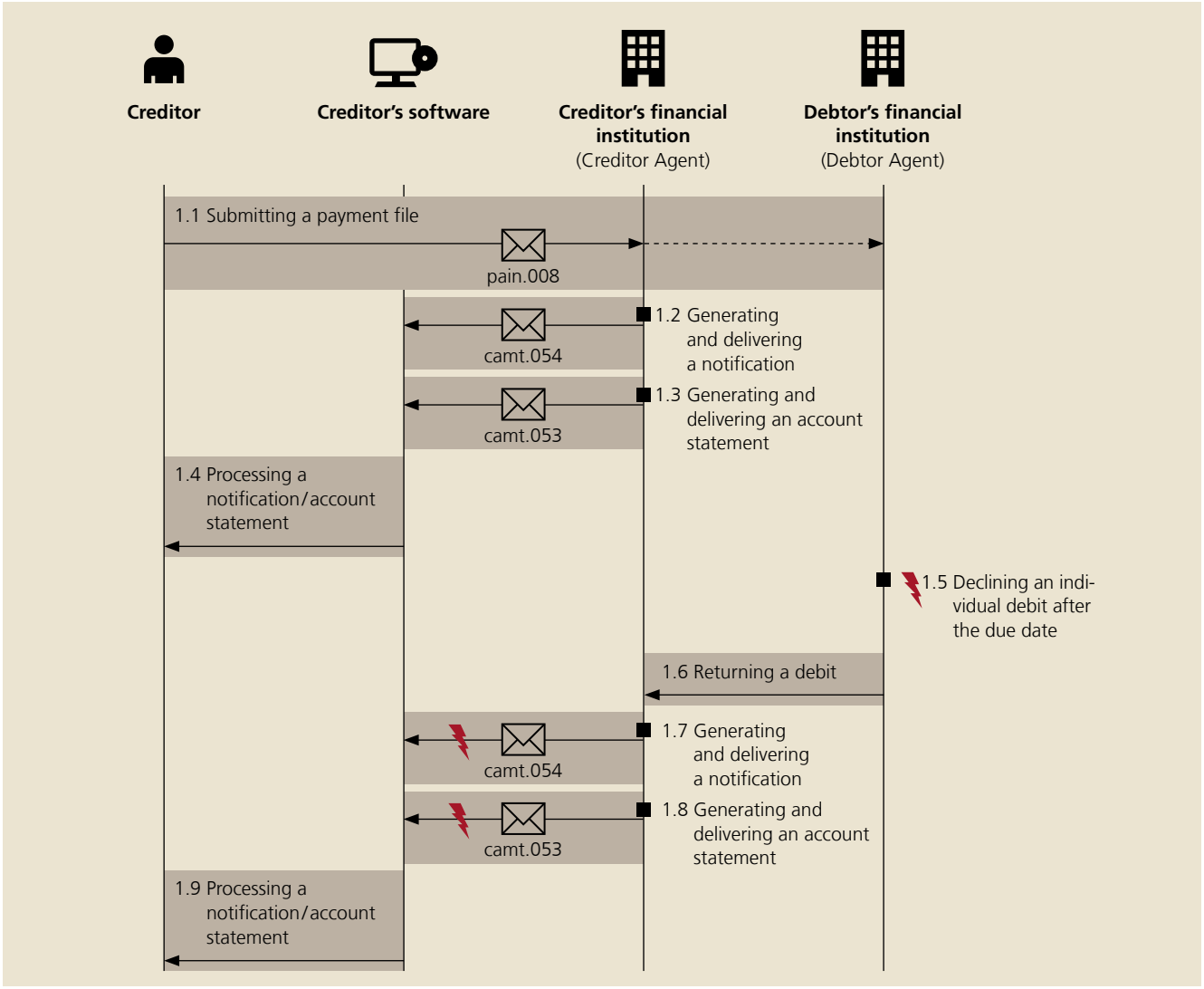
4.8 SEPA-DD Reject before the due date [51]



Brief description	A creditor collects claims with SEPA Direct Debits in the SEPA area which can only be partially processed by the debtor's financial institution. The creditor's financial institution informs the creditor that the direct debit submitted for execution cannot be processed.
Preconditions	The creditor has received a payment file (pain.008) with his accounts receivable software as per use case [42].
Main process	**1.1 Submitting a payment file** The creditor delivers a payment file (pain.008 as per the valid Implementation Guidelines for SEPA Direct Debits) to their financial institution. Following successful checking, the creditor's financial institution forwards the order plus the mandate data to the debtor's financial institution. **1.2 Receiving and processing a status report** The creditor's financial institution performs the structural and technical check on the payment file and informs the creditor of the result in a status report (pain.002). **1.3 Declining an individual debit** The debtor's financial institution cannot debit the debtor's account and declines it before the due date. **1.4 Returning a debit** The debtor's financial institution returns the non-executable debit to the creditor's financial institution. **1.5 Generating and delivering a notification** The creditor's financial institution sends the creditor a credit notification (camt.054) on the due date with the total credit of all direct debits entered (gross accounting method). In the same file, the reject is indicated individually.

	1.6 Generating and delivering an account statement The creditor's financial institution generates an account statement (camt.053) according to the customer's requested periodicity, and presents it to the creditor. The account statement contains the amount of all credits as well as the returned transaction as an individual entry. **1.7 Processing a notification/account statement** The creditor's software processes the notification (camt.054) and the account statement (camt.053) and recognizes which open items are to be closed by means of the detailed information. The items for returned debits remain open.

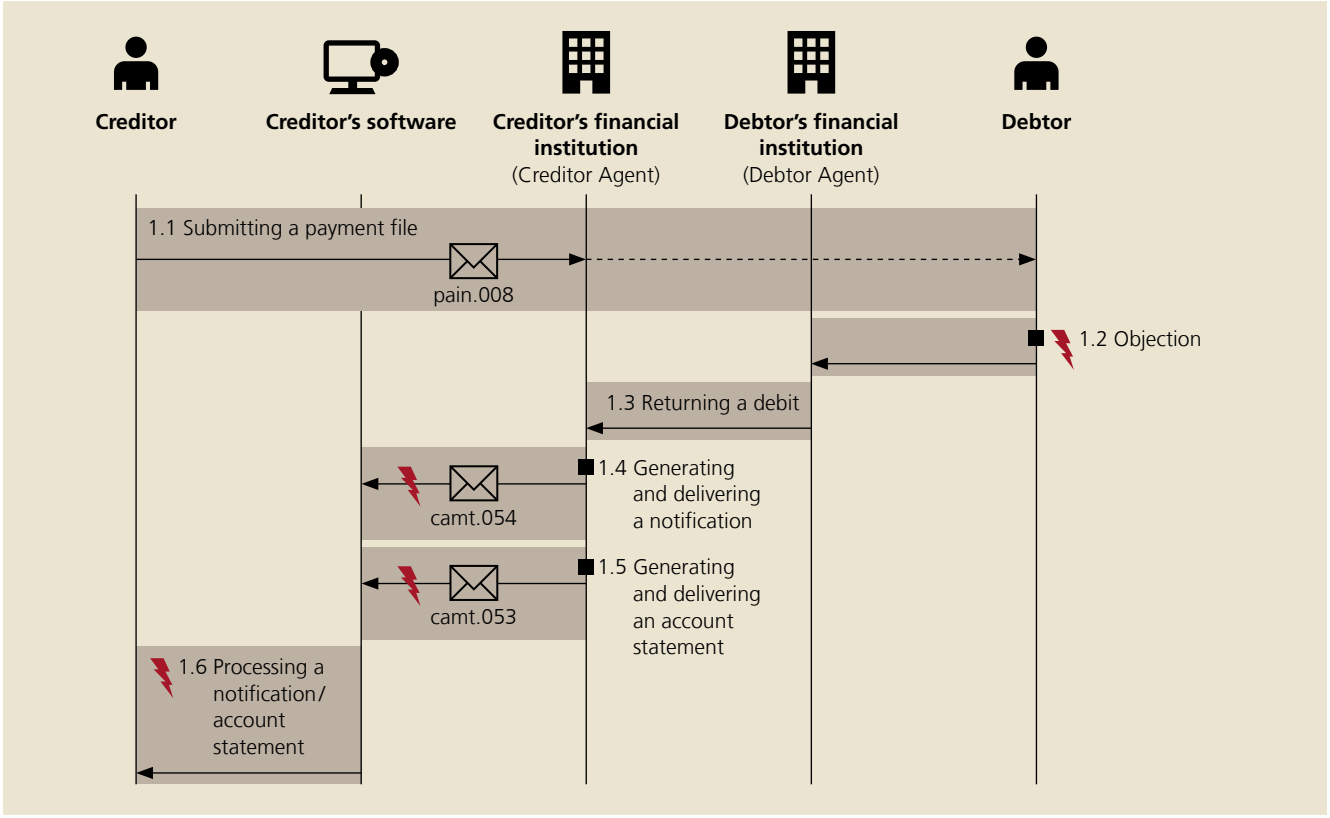
4.9 SEPA-DD Return after the due date [52]



Brief description	A creditor collects claims in the SEPA area with SEPA Direct Debits which cannot be processed by the debtor's financial institution after the due date. The creditor's financial institution informs the creditor that the payment submitted for execution cannot be carried out.
Preconditions	The creditor has received a payment file (pain.008) with his accounts receivable software and booked the credit notification (as per use case [42]).
Main process	**1.1 Submitting a payment file** The creditor delivers a payment file (pain.008 as per the valid Implementation Guidelines for SEPA Direct Debits) to their financial institution. **1.2 Generating and delivering a notification** The creditor's accounts receivable system receives the credit notification (camt.054) and tracks the status of the corresponding payment in his accounts receivable system based on the status report received. **1.3 Generating and delivering an account statement** The creditor's financial institution generates an account statement (camt.053) according to the customer's requested periodicity, and presents it to the creditor.

	1.4 Processing a notification/account statement The creditor's software processes the notification (camt.054) and the account statement (camt.053) and recognizes which open items are to be closed by means of the detailed information. **1.5 Declining an individual debit after the due date** The debtor's financial institution cannot debit the debtor's account and declines this after the due date. **1.6 Returning a debit** The debtor's financial institution returns the non-executable debit to the creditor's financial institution. **1.7 Generating and delivering a notification** The creditor's financial institution delivers the individual reject to the creditor after the due date in a camt.054 message. **1.8 Generating and delivering an account statement** The creditor's financial institution generates an account statement (camt.053) according to the customer's requested periodicity, and presents it to the creditor. The account statement contains the individual rejected debit. **1.9 Processing a notification/account statement** The creditor's software processes the notification (camt.054) and the account statement (camt.053) and recognizes which open items are to be closed by means of the detailed information. The items of the rejected debit must be re-opened.

4.10 SEPA-DD Refund after the due date [53]

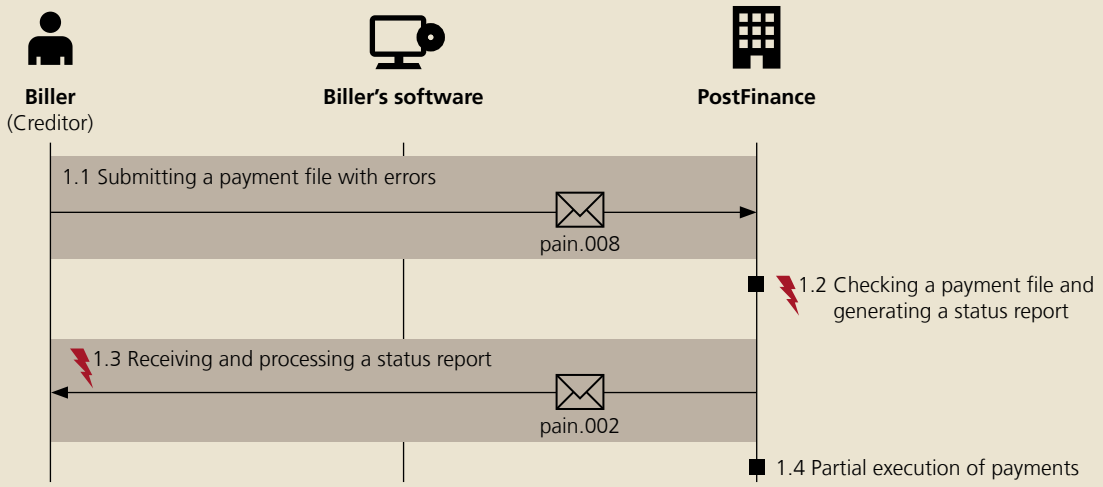


Brief description	A creditor collects claims in the SEPA area using the SEPA DD Core Direct Debit. The debit takes place from the paying account successfully. The debtor raises an objection or rejects an unauthorized debit.
Preconditions	The creditor has received a payment file (pain.008) with his accounts receivable software and booked the credit notification (as per use case [42]).
Main process	**1.1 Submitting a payment file** The creditor delivers a payment file (pain.008 as per the valid Implementation Guidelines for SEPA Direct Debits) to their financial institution. The debit is forwarded to the debtor's financial institution and their account is debited. **1.2 Objection** The debtor raises an objection within 56 days of the debit or rejects the debit due to an erroneous authorization up to 13 months after the debit. **1.3 Returning a debit** The debtor's financial institution instructs the creditor's financial institution to reimburse the corresponding debit and to charge the creditor. The creditor's financial institution debits their account. **1.4 Generating and delivering a notification** The creditor's financial institution notifies the creditor of the reimbursement with a camt.054 message. The notification contains the references to the rejected debit and the reason for the rejection.

1.5 Generating and delivering an account statement
The creditor's financial institution generates an account statement (camt.053) according to the customer's requested periodicity, and presents it to the creditor. The account statement contains the returned direct debit as a debit.

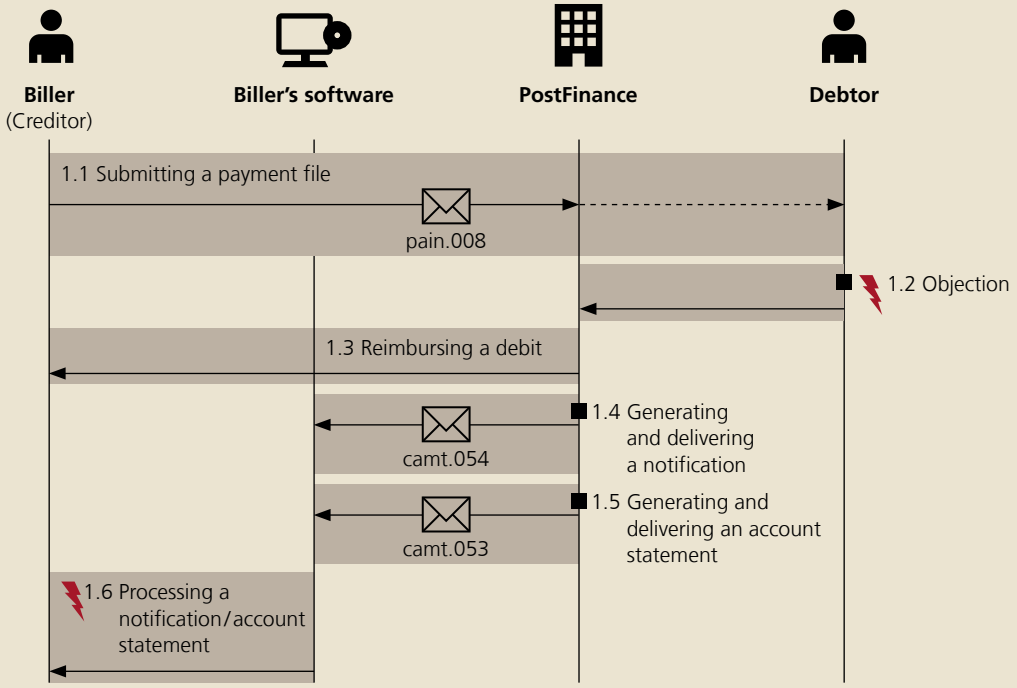
1.6 Processing a notification/account statement
The creditor's software processes the notification (camt.054) and the account statement (camt.053) and recognizes the detailed information regarding the direct debit in question. This is allocated to the original item in the accounts receivable software, and is to be marked as "not paid".

4.11 CH-DD Reject on delivery [54]



Brief description	A biller collects claims using the CH-DD Direct Debit Scheme, which PostFinance was only partially able to process. PostFinance informs the biller that an entered debit cannot be processed, and executes the transactions which can be carried out.
Preconditions	The biller has received a payment file (pain.008) with his accounts receivable software. The biller and debtor each have an account with PostFinance
Main process	**1.1 Submitting a payment file with errors** The biller delivers a payment file (pain.008 as per the valid Implementation Guidelines for Swiss Direct Debits) to their financial institution which indicates errors. **1.2 Checking a payment file and generating a status report** PostFinance performs the structural and technical check on the payment file and informs the biller of the result in a status report (pain.002). **1.3 Receiving and processing a status report** The biller's software receives the status report (pain.002) and marks the erroneous debit as not executed. The biller is shown the non-executed debit. **1.4 Partial execution of payments** PostFinance carries out the executable debits on the specified date.

4.12 CH-DD Refund after the due date [55]



Brief description	A biller collects claims via the CH-DD Direct Debit (COR1) Scheme. The debtor's account is successfully debited. The debtor raises an objection or rejects an unauthorized debit.
Preconditions	The biller has received a payment file (pain.008) with his accounts receivable software and booked the credit notification (as per use case [44]). The biller and debtor each have an account with PostFinance.
Main process	**1.1 Submitting a payment file** The biller delivers a payment file (pain.008 as per the valid Implementation Guidelines for Swiss Direct Debits) to PostFinance. The debit is charged to the debtor's account. **1.2 Objection** The debtor raises an objection in writing against the charge (within 30 days of notification of the debit) or rejects the payment on the grounds of an erroneous authorization. **1.3 Reimbursing a debit** PostFinance debits the biller's account for the amount of the rejected amount. **1.4 Generating and delivering a notification** PostFinance notifies the biller of the reimbursement with a camt.054 message. The notification contains the references to the rejected debit and the reason for the rejection. **1.5 Generating and delivering an account statement** PostFinance generates an account statement (camt.053) according to the customer's requested periodicity, and presents it to the biller. The account statement contains the returned direct debit as a debit. **1.6 Processing a notification/account statement** The biller's software processes the notification (camt.054) and the account statement (camt.053) and recognizes which open items are to be closed by means of the detailed information. This is allocated to the original item in the accounts receivable software, and is to be marked as "not paid".

5. Cash and liquidity management use cases

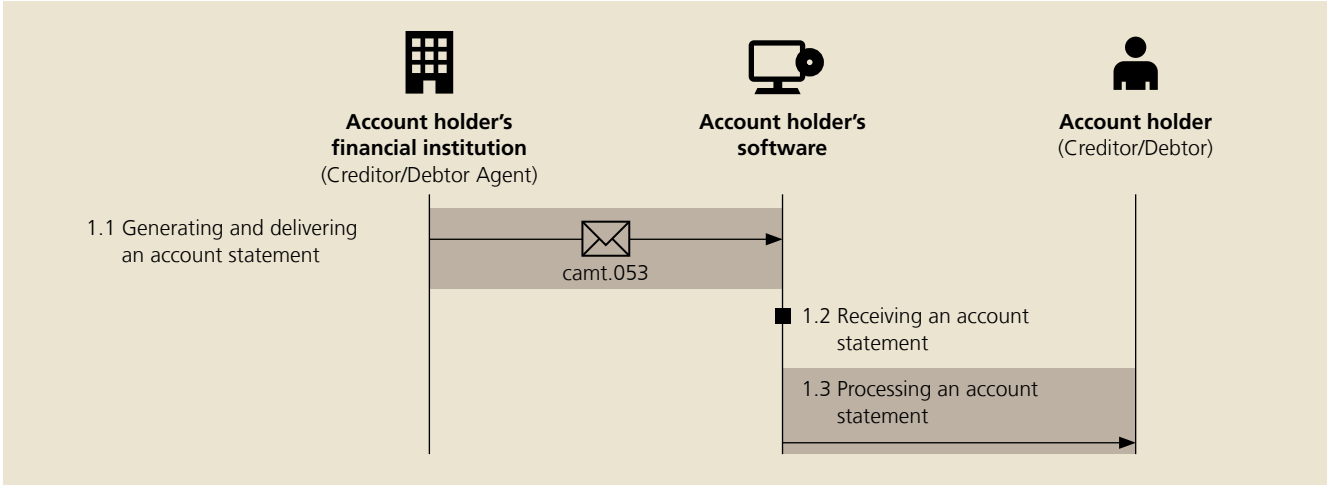
Use cases in the area of cash and liquidity management differ from the above cases of accounts payable and accounts receivable management, in that in finance, larger companies do not process mass data. Rather, a limited amount of information is processed in internal systems, the complexity of which is independent of the size and structure of the company.

The following use cases are distinguished by the use of ISO formats in cash and liquidity management:
- Evaluation of account balance from an account statement. Please note: this can refer to an account statement with detailed notification (camt.053) or an account statement with batch entries (camt.053) and separate detailed notification (camt.054) which contains the transaction details [60]. The evaluation of the balance is not affected by this distinction. The evaluation of possible financial transactions from which the details are to be taken (financing, interest payments, tax payments, etc.) is not described in detail here.
- Evaluating intraday account movements with entries since the last account statement; this is used in the first instance by large companies [61].
- Evaluation of an intraday notification with credit or debit (camt.054), facilitating establishing intraday liquidity flow: this use case is predominantly found among large companies with complex payment processes [62, 63].

Deferrals
On the grounds of the information they contain, transfers in the financial sector are completed in such a way as to remedy shortfalls and surplus cover, to optimize liquidity, etc. These incidents are covered in the "Accounts payable processes" section and are not discussed further here.

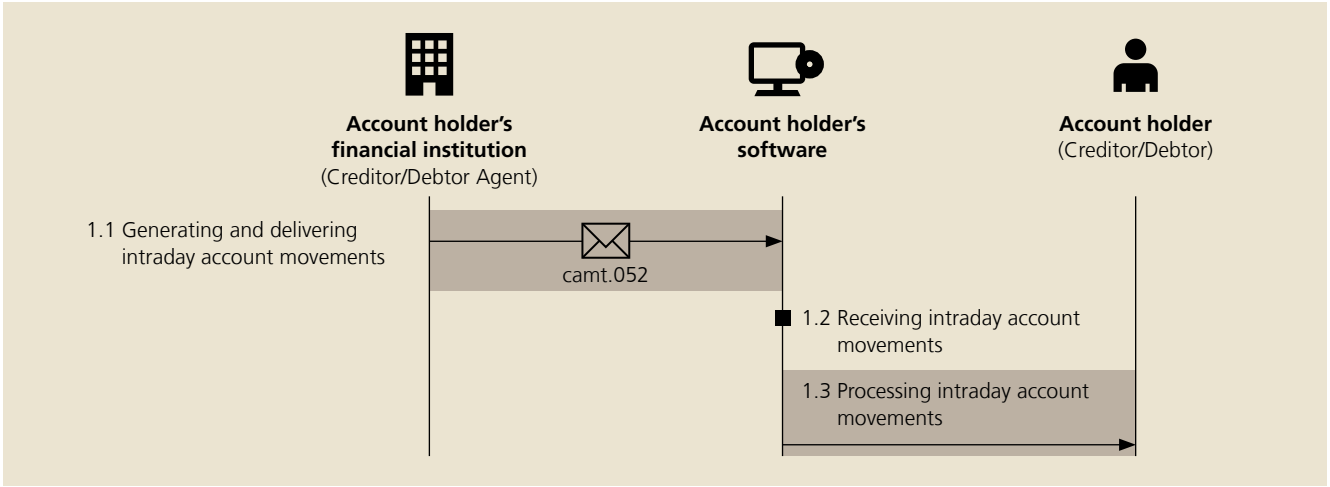
Further substantial instruments in the area of liquidity management are also found in the PostFinance pooling services. Because these services remain the same in the new ISO-based services, they are also not represented here.

5.1 Processing an account statement [60]



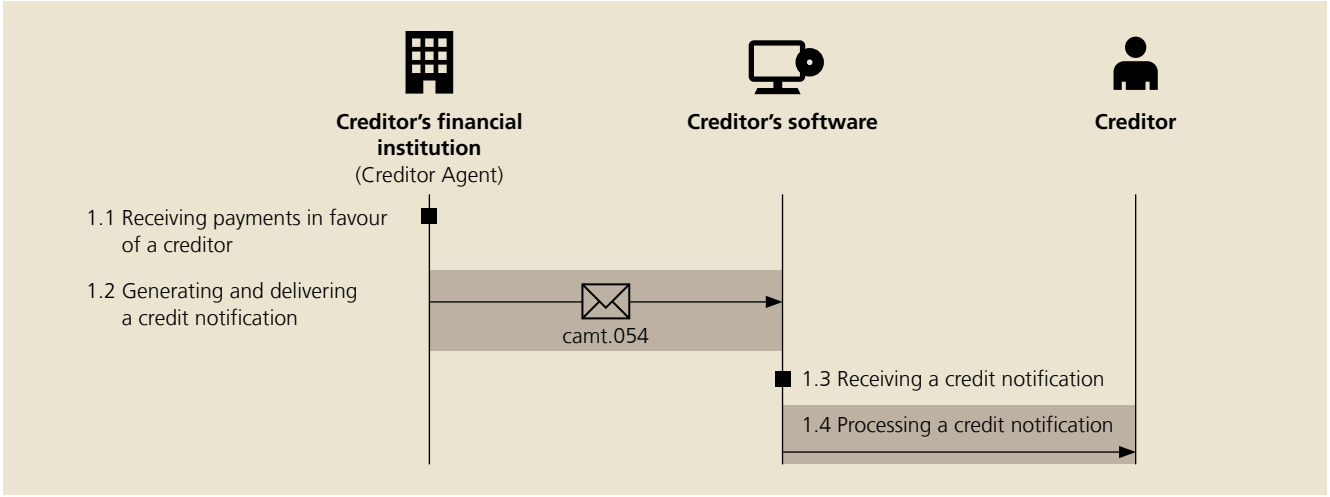
Brief description	The customer receives a credit to their account, or their account is debited. The financial institution informs the customer about the entries in an account statement. In the case of notifications via account statement with detailed notification (camt.053), the account statement contains the payment's transaction details. In the case of notification via account statement with batch entries (camt.053) and separate detailed notification (camt.054), the account statement only contains the batch entries, and therefore the customer receives a detailed notification (camt.054), which shows the transaction details. For this use case, only the batch entries are relevant, and the transaction details are ignored.
Actors	Account holder Account holder's financial institution Account holder's accounting software
Preconditions	The customer has ordered an account statement (camt.053) from their financial institution. The customer account was debited or credited; the balance has changed since the last account statement. The time of the creation and delivery of the account statement (camt.053) has arrived.
Main process	**1.1 Generating and delivering an account statement** The financial institution generates the account statement (camt.053) in the periodicity requested by the account holder and presents it to the account holder. **1.2 Receiving an account statement** The account holder receives the account statement (camt.053) and starts to process it in his accounting software. **1.3 Processing an account statement** The balance and the entries are read out from the account statement. The display and evaluation options in the software take account of the new data.

5.2 Processing intraday account movements [61]



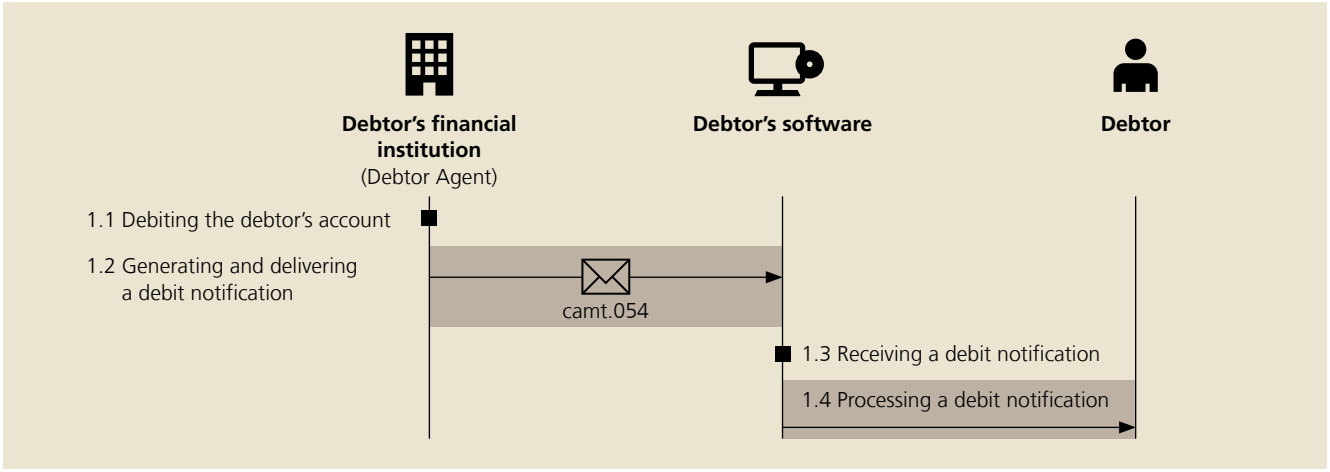
Brief description	The customer receives a credit to their account, or their account is debited. The financial institution informs the customer of the entries within the framework of an intraday account movements report (camt.052).
Actors	Account holder Account holder's financial institution Account holder's accounting software
Preconditions	The customer has ordered a camt.052 from their financial institution. The customer account was debited or credited; the balance has changed since the last account statement. The time of the creation and delivery of the camt.052 has arrived.
Main process	**1.1 Generating and delivering intraday account movements** The financial institution generates the camt.052 in the periodicity requested by the account holder and presents it to the account holder. **1.2 Receiving intraday account movements** The account holder receives the camt.052 and starts to process it in his accounting software. **1.3 Processing intraday account movements** The balance is read off from the intraday account movements. The display and evaluation options in the software take account of the new data. If a camt.052 was already created for the same day and the same account ("intraday account movements 1") then these data are updated in the new intraday account movements ("intraday account movements 2"). The software deals with this appropriately.

5.3 Processing a credit notification [62]



Brief description	The customer receives credits on his account. The financial institution informs the customer about the entries via an amount-dependent credit notification (camt.054).
Actors	Creditor Creditor's financial institution Creditor's accounting software
Preconditions	The customer has ordered an amount-dependent credit notification (camt.054) from their financial institution. An amount is defined by the creditor for their financial institution, and a credit notification (camt.054) is to be sent when the amount is exceeded (see PostFinance's "Electronic account documents" manual [5]). A credit is made that exceeds the limit.
Main process	**1.1 Receiving payments in favour of a creditor** The financial institution receives payments in favour of the creditor and credits them to the creditor. **1.2 Generating and delivering a credit notification** When the limit for credits established by the customer is exceeded, the financial institution generates a credit notification (camt.054) and presents it to the creditor. **1.3 Receiving a credit notification** The creditor receives the credit notification (camt.054) and starts to process it in his accounting software. **1.4 Processing a credit notification** The credit notification (camt.054) is read in. The display and evaluation options in the software take account of the new data.

5.4 Processing a debit notification [63]



Brief description	The customer account is debited. The financial institution informs the customer about the entries via an amount-dependent debit notification (camt.054).
Actors	Debtor Debtor's financial institution Debtor's accounting software
Preconditions	The customer has ordered an amount-dependent debit notification (camt.054) from their financial institution. An amount is defined by the debtor for their financial institution, and a debit notification (camt.054) is to be sent when the amount is exceeded (see PostFinance's "Electronic account documents" manual [5]). A debit is made that exceeds the limit.
Main process	**1.1 Debiting the debtor's account** The financial institution debits the debtor's account. **1.2 Generating and delivering a debit notification** When the limit for debits established by the debtor is exceeded, the financial institution generates a debit notification (camt.054) and presents it to the debtor. **1.3 Receiving a debit notification** The debtor receives the debit notification (camt.054) and starts to process it in his accounting software. **1.4 Processing a debit notification** The debit notification (camt.054) is read in. The display and evaluation options in the software take account of the new data.

6. Test cases

In the following chapter, best practice test cases are used to illustrate the use cases already described. This collection of test cases should assist PostFinance customers in constructing their own test cases. The PostFinance test platform (see the "PostFinance Ltd test platform" manual [9]) provides concrete examples (XML files) for most test cases and permits testing of the most important patterns of interactions in the customer-PostFinance interface.

6.1 Accounts payable test cases

Test case	Description
C001	**Creation of a payment file with ISR payments (individual entry, without notification)** This tests the creation of correct payment files (pain.001) with ISR payments in CHF and EUR. To this end, ISR payments are recorded and a payment file with the individual booking without notification variant is created. With the help of the test platform, the structural accuracy of the created payment file (pain.001) is verified. In terms of content, it is necessary to check whether, in the payment file (pain.001), the values are set to the individual entry option (batch booking = false) and the NOA (No Advice) notification option. For both of the order currencies CHF and EUR, a dedicated B level must be provided in the pain.001.
C002	**Creation of a payment file with IS payments (batch entry, without notification)** This tests the creation of correct payment files (pain.001) with IS payments to a postal account (one-level slip) in CHF and IS payments to IBAN (two-level slip) in EUR. To this end, IS payments are recorded and a payment file with the batch entry without notification variant is created. With the help of the test platform, the structural accuracy of the created payment file (pain.001) is verified. In terms of content, it must be established whether in the payment file (pain.001), the values are set for the batch entry option (batch booking = true) and the NOA (No Advice) notification option. For both of the order currencies CHF and EUR, a dedicated order level (B level) must be provided in the pain.001.
C003	**Creation of a payment file with IBAN payments (batch entry with detailed notification)** This tests the creation of correct payment files (pain.001) with domestic payments without slip to an IBAN in EUR and domestic payments without slip to an IBAN in CHF. To this end, IBAN payments are recorded and a payment file (pain.001) with the batch booking with detailed notification variant is created. With the help of the test platform, the structural accuracy of the created payment file (pain.001) is verified. In terms of content, it is necessary to check whether, in the payment file (pain.001), the values are set for the individual entry option (batch booking = false) and the NOA (No Advice) notification option. For both of the order currencies CHF and EUR, a dedicated order level (B level) must be provided in the pain.001.
C004	**Creation of a payment file with SEPA payments with different execution days** This tests the creation of correct payment files (pain.001) with SEPA payments. To this end, SEPA payments are recorded which should be executed on different days. With the help of the test platform, the structural accuracy of the created payment file (pain.001) is verified. In terms of content, it must be established whether the necessary attributes for SEPA payments are set in the payment file (pain.001). For every execution date, a dedicated order level (B level) must be present in the pain.001.
C005	**Creation of a payment file with foreign currency and CHF payments with different debit accounts and execution days (individual booking with individual notification)** This tests the creation of the correct payment files (pain.001) with domestic payments in foreign currency, and international payments (excl. the EU area) in foreign currency and CHF. To this end, payments with different debit accounts or execution days are recorded and a payment file is created with the individual entry and individual notification variant is created. With the help of the test platform, the structural accuracy of the created payment file (pain.001) is verified. In terms of content, it is necessary to check whether, in the payment file (pain.001), for every available combination of order currency, debit account and execution date, a separate order level (B level) was created. It must also be established whether in the payment file (pain.001), the values are set for the individual entry and SIA (Single Advice) notification options. This also tests whether the creditor's address information in total exceeds 4 times 35 characters.
C006	**Creation of a payment file with salary payments** This tests the creation of correct payment files (pain.001) with salary payments in CHF. To this end, salary payments are recorded and the payment file which has been created (pain.001) is then tested for accuracy. Amongst other things, it is necessary to check whether, in the payment file (pain.001), the values are set to the batch entry booking option and the CND (Collective Advice No Details) notification option, in order to ensure maximum discretion in account notifications (camt.053). It must also be established whether the payments with salary standardization are being grouped with payments without salary standardization.

Test case	Description
C007	**Receiving and processing status reports when delivering error-free payment files** This tests whether the status report (pain.002) has been successfully received and processed when an error-free payment file (pain.001) is delivered. After successful processing, the status for an error-free, entered payment is updated in the accounts payable software. **Test preparation:** To prepare this test case, test cases C001, C002, C003, C004 and C005 (or C006) should be executed.
C008	**Receiving and processing status reports when delivering payment files with content errors in the payment information** This tests whether the status report (pain.002) has been successfully received and processed when payment files (pain.001) with content errors in the payment information are delivered. To this end, a payment file (pain.001) with content errors in the payment information is created and delivered to the financial institution. The corresponding status report (pain.002) from the financial institution is processed in the accounts payable software. Following successful processing, it should be clear in the accounts payable software, which payments have been completed successfully and which were not executed.
C009	**Receiving and processing status reports when delivering payment files with an unauthorized debit account** This tests whether the status report (pain.002) has been successfully received and processed when a payment file (pain.001) with an unauthorized debtor's debit account is delivered. To this end, a payment file (pain.001) with an unauthorized debtor's debit account is created and delivered to the financial institution. The financial institution generates only one bulletin of verification (pain.002) for the whole order, stating that the whole order (and therefore all associated payments) cannot be executed. After processing the corresponding status report (pain.002), it should be clear in the accounts payable software that the payment order was not executed in full.
C010	**Receiving and processing status reports in cases of duplicate payment** This tests whether the status report (pain.002) is processed correctly in the event of a duplicate payment. To this end, a payment file (pain.001) which has already been processed successfully, is delivered again. On the grounds of the repeated use of the message ID, the payment file is recognized as a duplicate by the financial institution. The financial institution generates a bulletin of verification (pain.002) for the entire cancelled payment file. The corresponding status report (pain.002) from the financial institution is verified in the accounting system for accuracy and proper processing. Where this has been processed successfully, a non-executed payment status must be registered against all payments from the corresponding payment file in the accounting system. After processing the corresponding status report (pain.002), it should be clear in the accounts payable software that all of the payment orders (all B levels in the pain.001) were not executed.
C011	**Receipt and processing of status report in the event of correction of preferred execution date by the financial institution** This tests whether the status report (pain.002) has been correctly processed when a payment file (pain.001) is delivered with an execution date which does not fall on a bank working day. To this end, a payment file (pain.001) with an execution date set as a Sunday is created and delivered to the financial institution. The financial institution checks the payment file and determines whether the requested processing date of an order does not match a valid bank working day. The affected payments are scheduled by the financial institution to the next possible execution date. The financial institution uses a status report (pain.002) to notify the debtor that it has accepted the affected order with changes (ACWC – Accepted with Change). After processing the corresponding status report (pain.002), it should be clear in the accounts payable software for which payment orders the execution date has been adjusted.
C012	**Receiving and processing status reports in cases of insufficient funds** This tests whether the status report (pain.002) has been successfully received and processed in cases of insufficient funds. To this end, a payment file (pain.001) is created with a payment order which shows inadequate funds in the debit account and delivered to the financial institution. At the time of execution, the financial institution checks if the payment orders can be executed, and determines that they cannot be executed as requested. In this case the entire payment order is cancelled. The financial institution generates a status report (pain.002) and informs the debtor that the payment orders could not be executed. After processing the corresponding status report (pain.002), it should be clear in the accounts payable software which payment orders were not executed due to insufficient funds in the payment account.
C013	**Receiving and processing account statements in the event of returned payments** This tests whether the account statement (camt.053) has been successfully received and processed in the event of returned payments. To this end, a payment file (pain.001) is created, which contains insufficient information on the creditor. The payment is processed completely from the perspective of the debtor. The creditor's financial institution cannot assign the received payment to any creditor and returns the payment. The payment (return) is shown to the original debtor via account statement (camt.053) or alternatively with a credit notification (camt.054). After processing of the account statement (or credit notification camt.054), the returns should be linked to the original outpayment.

Test case	Description
C014	**Updating debit items upon receiving an order notification (camt.054)** This tests whether the order notification (camt.054) is successfully processed when a payment file (pain.001) is delivered, and whether the debit items are updated with the effective entry values. To this end, a payment file (pain.001) which contains the value for the CWD notification option (Collective Advice With Details) is created and delivered to the financial institution. After receiving and processing the order notification (camt.054), the payment items should be adjusted in the accounts payable software so as to accord with the values which were actually applied (exchange rate, execution date and charges levied). **Test preparation:** Successful execution of test case C003
C015	**Processing and updating debit items with applied entry values upon receipt of account statement** This tests whether the account statement (camt.053) is successfully processed when a payment file (pain.001) is delivered, and whether the payment items are updated with the effective entry values in the accounts payable software. To this end, a payment file (pain.001) which contains the value for the individual entry option is created and delivered to the financial institution. After receiving and processing the account statement (camt.053), the payment items should be adjusted in the accounts payable software so as to accord with the values which were actually applied (exchange rate, execution date and charges levied). **Test preparation:** Successful execution of test case C001
C016	**Reconciling accounts payable upon receipt of account statement (delivery with individual bookings)** This tests whether the account statement (camt.053) has been successfully processed when a payment file (pain.001) is delivered, and whether the creditor account has been reconciled. To this end, a payment file (pain.001) which contains the value for the individual entry option is created and delivered to the financial institution. The corresponding account statement (camt.053) with all batch and individual entries from the financial institution is verified in the accounting system for accuracy and proper processing. In the event of successful processing, the batch entries from the account statement must be able to be reconciled by means of the payment order reference. **Test preparation:** Successful execution of test case C001
C017	**Reconciling accounts payable upon receipt of account statement (delivery with batch bookings)** This tests whether the account statement (camt.053) has been successfully processed when a payment file (pain.001) is delivered, and whether the creditor account has been reconciled. To this end, a payment file (pain.001) which contains the value for the batch entry option is created and delivered to the financial institution. The corresponding account statement (camt.053) with all batch entries from the financial institution is verified in the accounting system for accuracy and proper processing. In the event of successful processing, batch entries from the account statement must be able to be reconciled by means of the payment order reference. **Test preparation:** Successful execution of test case C003
C018	**Ensuring timely salary payments** This tests whether salary payments are executed in a timely manner. To this end, a payment file (pain.001) containing salary payments is created and delivered to the financial institution. After the salary payments are executed, it will be verified whether, in the corresponding account statement (camt.053), the desired execution date and the effective execution date are the same. **Test preparation:** Successful execution of test case C006
C019	**Ensuring discretion in salary payments** This tests whether maximum discretion is ensured in salary payments. To this end, a payment file (pain.001) containing salary payments is created and delivered to the financial institution. After the execution of salary payments, it is verified whether in the corresponding account statement (camt.053), any creditor information is visible. **Test preparation:** Successful execution of test case C006
C020	**Creation and processing of payment files** This tests whether large payment files (pain.001) can be correctly split up in the accounting software and that the associated message types can be processed in the accounts payable process. To this end, more than 99,999 transactions are recorded, and then the corresponding payment files are created. This verifies whether a second payment file is successfully created where there are more than 99,999 transactions at C level. This also verifies whether the associated pain.002 message types (status reports) and camt.054 (order notification) can be processed.

Test case	Description
C021	**Processing OSR debits (notification with camt.054)** After the outpayment of an outpayment slip with reference number, the debtor customer is debited and receives a notification as per the selected periodicity of all debits with the corresponding reference number (camt.054). After processing the order notification (camt.054), the completed debits are allocated to the appropriate items in the accounts payable software. The debits are allocated using the outpayment slip's registered reference number.
C022	**Processing OSR debits (using account statement camt.053)** After the outpayment of an outpayment slip with reference number, the paying customer is debited and receives their account statement as per the selected periodicity. The account statement contains the details of the individual OSR at the Detail Level (D level). After processing the account statement (camt.053), the completed debits are allocated to the appropriate items in the accounts payable software. The debits are allocated using the outpayment slip's registered reference number.

6.2 Accounts receivable test cases

6.2.1 Inpayment slip with and without reference number

Test case	Description
D001	**Processing ISR credits (ISR customer number)** This tests whether the ISR credit notification has been successfully received and processed. In the event of successful processing, the ISR payment entries can be allocated to existing open items using the ISR reference numbers. Charges levied and value dates can be allocated to the detailed information for each payment entry. **Alternatives:** Notification using account statement with detailed notification (camt.053) or separate detailed notification (camt.054).
D002	**Processing ISR credits (several ISR customer numbers per credit account)** This tests whether the ISR credit notification with several ISR customer numbers has been successfully received and processed. For each ISR customer number, a C level is created and booked. All C levels for the same credit account are delivered in the same file. The file is split from a maximum Trx number of 100,000. **Alternatives:** Notification using account statement with detailed notification (camt.053) or separate detailed notification (camt.054).
D003	**Processing ISR credits (cancellations and corrections)** This tests whether the cancellations and corrections contained in the ISR credit notification can be successfully received and processed. Cancellations and corrections are delivered and entered as a separate C level ("gross booking method"). **Alternatives:** Notification using account statement with detailed notification (camt.053) or separate detailed notification (camt.054).
D004	**Processing split ISR credits** This tests whether ISR credit notifications which have been split into several bundles due to their size are successfully received and processed. **Alternatives:** Notification using account statement with detailed notification (camt.053) or separate detailed notification (camt.054).
D005	**Processing IS credits with slip image** This tests whether the IS credit notification with slip image has been successfully received and processed. The credit is allocated manually by comparing the debtor information on the slip image with the open items. **Alternatives:** Notification using account statement with detailed notification (camt.053) or separate detailed notification (camt.054). Entered individually or as a batch.
D006	**Processing fully-recorded IS credits** This tests whether the fully recorded IS credit notification has been successfully received and processed. The credit is allocated to open items automatically by means of the fully recorded debtor information in the credit file. **Alternatives:** Notification by means of account statement with detailed notification (camt.053) or separate detailed notification (camt.054) either with or without slip image. Entered individually or as a batch.

6.2.2 SEPA-DD and CH-DD Direct Debit Schemes

Test case	Description	SEPA-DD	CH-DD
D100	**Creation of a correct payment file with SEPA-DD Direct Debit orders** This tests the creation of a correct payment file (pain.008) with SEPA Direct Debit orders. As variants, Core/B2B as well as single/first/recurring/final direct debits are tested. With the help of the test platform, the structural accuracy of the created payment file (pain.008) is verified. **Batch booking:** PostFinance offers only batch bookings at B level, which is why the batch booking field must be set to "true" or else the field will not be sent.	×	
D101	**Creation of a payment file with CH-DD debit orders (COR1 and B2B) with more than 100,000 transactions** This tests the creation of a payment file (pain.008) with CH-DD Direct Debit orders, for which the number of C-level transactions exceeds 100,000. It is expected that the payment file will be returned and will have to be split up by the customer. This tests whether a large payment file (pain.008) and the associated status report (pain.002) can be processed.		×
D102	**Creation of a large payment file with CH-DD Direct Debit orders (COR1 and B2B)** This tests the creation and processing of a payment file (pain.008) with CH-DD Direct Debit orders with a large number of transactions, for which the number of C-level transactions does not exceed 100,000. This tests whether a large payment file (pain.008) and the associated status report (pain.002) and credit notification (camt.053/camt.054) can be processed.		×
D103	**Creation of a correct payment file with CH-DD Direct Debit orders** This tests the creation of a correct payment file (pain.008) with CH-DD Direct Debit orders. As a variant, COR1 and B2B, and the EUR and CHF currency options are tested. With the help of the test platform, the structural accuracy of the created payment file (pain.008) is verified.		×
D104	**Creating payment file with SEPA-DD Direct Debit orders (Core and B2B) or CH-DD Direct Debit orders (COR1 and B2B) with different execution days** This tests the creation of correct payment files (pain.008). To this end, debit orders are recorded which should be executed on the different days. With the help of the test platform, the structural accuracy of the created payment file (pain.008) is verified. In terms of content, it must be established whether the necessary attributes for SEPA-DD or CH-DD Direct Debits are set in the payment file (pain.008). For every execution date, a dedicated B level must be present in the pain.008.	×	×
D105	**Receiving and processing status reports when delivering error-free payment files** This tests whether the status report (pain.002) has been successfully received and processed when an error-free payment file (pain.008) is delivered. **Options: Simulated delivery via the FDS, H-Net, SWIFT FileAct channels:** The creditor also receives the ACTC technical receipt confirmation. **Processing message (pain.002):** Error-free orders are confirmed upon issue with the status ACCP. Accepted orders or transactions with notes will be reported with the status ACWC and contain a warning.	×	×
D106	**Receipt and processing account statements and notifications (camt.053/ camt.054) in delivery of error-free payment files where multiple debit attempts have been made** This tests receipt and processing of account statements and notifications (camt.053 and camt.054), which result from the processing of multiple debit attempts after 3 and/or 5 days (CH-DD COR1).		×

Test case	Description	SEPA-DD	CH-DD
D107	**Receiving and processing status reports when delivering a payment file with content errors in the payment information** This tests whether the status report (pain.002) has been successfully received and processed when a payment file (pain.008) with content errors in the payment information is delivered. To this end, a payment file (pain.008) with content errors in the payment information is created and delivered to the financial institution. The resulting status report (pain.002) from the financial institution is processed in the accounts receivable software. **Orders with individual transactions which contain errors** are reported with the status PART, as the order is partially correct. The transactions from this order which contain errors will appear as RJCT. **Invalid payment files (pain.008) and orders containing errors (B level)** are reported as RJCT. **If all transactions contain errors,** the order (B level) as well as all transactions (C level) are reported as RJCT. If individual transactions (C level) or orders (B level) are cancelled between the order being issued and executed, these are reported as RJCT.	×	×
D108	**Receiving and processing status reports when delivering a payment file with an unauthorized credit account** This tests whether the status report (pain.002) has been successfully received and processed when a payment file (pain.008) with an unauthorized creditor credit account is delivered. To this end a payment file (pain.008) with an unauthorized creditor credit account is created and delivered to the financial institution. The financial institution generates one bulletin of verification (pain.002) for the whole order, stating that the whole order (and therefore all associated payments) cannot be executed. After processing the corresponding status report (pain.002), it should be clear in the accounts receivable software that the payment order was not executed in full.	×	×
D109	**Reconciliation of debtors (open items) upon receipt of credit notification (camt.053/camt.054)** This checks whether the credit notification (cam.053/camt.054) has been successfully received and processed. In the event of successful processing, the payment entries can be allocated to existing open items using the reference numbers.	×	×
D110	**Receiving and processing status reports in cases of duplicate payment** This tests whether the status report (pain.002) is processed correctly in the event of a duplicate payment. To this end, a payment file (pain.008) which has already been processed successfully, is delivered again. The following appear under the heading of duplicate processing checks: whole files and tests for whether several identical B levels exist within a single file. **A-level testing:** On the grounds of the repeated use of the message ID and initiating party, the payment file is recognized as a duplicate by the financial institution. The financial institution generates a bulletin of verification (pain.002) for the entire cancelled payment file. Uniqueness is tested over a 90-day period. **B-level testing:** Several orders (B level) with the same credentials cannot be automatically processed and are cancelled. The test takes place using the order number (payment information identification). The corresponding status report (pain.002) from the financial institution is verified in the accounting system for accuracy and proper processing. Where this has been processed successfully, a non-executed payment status must be registered against all payments from the corresponding payment file in the accounting system. After processing the corresponding status report (pain.002), it should be clear in the accounts receivable software that all of the payment orders were not executed.	×	

Test case	Description	SEPA-DD	CH-DD
D111	**Receiving and processing status reports in cases of duplicate payment** This tests whether the status report (pain.002) is processed correctly in the event of a duplicate payment. To this end, a payment file (pain.008) which has already been processed successfully, is delivered again. The following appear under the heading of duplicate processing checks: whole files and tests for whether several identical B levels exist within a single file. **A-level testing:** On the grounds of the repeated use of the message ID and initiating party, the payment file is recognized as a duplicate by the financial institution. The financial institution generates a bulletin of verification (pain.002) for the entire cancelled payment file. Uniqueness is tested over a 90-day period. **B-level testing:** Several orders (B level) with the same credentials cannot be automatically processed and are cancelled. The test takes place using the order number (payment information identification). The corresponding status report (pain.002) from the financial institution is verified in the accounting system for accuracy and proper processing. Where this has been processed successfully, a non-executed payment status must be registered against all payments from the corresponding payment file in the accounting system. After processing the corresponding status report (pain.002), it should be clear in the accounts receivable software that all of the payment orders were not executed.		×
D112	**Receiving and processing status report where corrections are made to the desired execution date by the financial institution (late delivery/approval or desired execution date is not a Swiss Post working day)** It must be established whether the status report (pain.002) has been correctly processed when a payment file (pain.008) is delivered with an execution date which does not fall on a bank working day. To this end, a payment file (pain.008) with an execution date set as a Sunday is created and delivered to the financial institution. The financial institution checks the payment file and determines that the requested processing date of an order does not match a valid bank working day. The affected payments are rescheduled by the financial institution for the next possible execution date. The financial institution uses a status report (pain.002) to notify the debtor that it has accepted the affected order with changes (ACWC – Accepted with Change). After processing the corresponding status report (pain.002), it should be clear in the accounts receivable software for which payment orders the execution date has been adjusted.	×	×
D113	**Receiving and processing account statement where a payment has been rejected before settlement (rejects by PostFinance)** This tests whether the status report (pain.002) has been successfully received and processed in cases where debtor accounts could not be debited. To this end, a payment file (pain.008) containing an erroneous payment order is created and delivered to the financial institution. At the time of execution, the financial institution checks if the payment order can be executed, and determines that it cannot be executed as requested. In this case the payment order in question is cancelled. The financial institution generates a pain.002 and informs the debtor that the payment orders could not be executed.		×
D114	**Reject by the paying bank** This checks whether the notification (camt.053/camt.054) has been successfully received and processed. To this end, a payment file (pain.008) is created and sent to PostFinance. At the time of execution, the debtor bank tests the payment order and returns it. The creditor is notified by means of a camt.053/camt.054.	×	
D115	**Receiving and processing account statement where a payment has been rejected after settlement (returns)** This tests whether the notification (camt.053/camt.054) has been successfully received and processed where a debtor account could not be debited. To this end, a payment file (pain.008) containing a payment order is created and delivered to the financial institution. At the time of execution, the financial institution checks if the payment orders can be executed, and determines that they cannot be executed as requested. In this case the payment order in question is cancelled. The financial institution generates a camt.053 or camt.054 and informs the debtor that the payment orders could not be executed.	×	

Test case	Description	SEPA-DD	CH-DD
D116	**Receiving and processing reimbursed direct debit orders following objection by the debtor (refund) for Core/COR1 or unauthorized collection for B2B** This tests whether refunds following objections, or unauthorized collection (refund after settlement) can be received and processed correctly. The notification is created as a camt.053 or camt.054 and processed in accounts receivable software. Closed items must be re-opened because of the refund.	×	×
D117	**Receiving and processing status reports with notes for non-approved orders** This tests whether a status report (pain.002) can be created and processed and which informs the customer of orders whose due date has passed and which have still not been approved. The status report (pain.002) is created at the following points: – SEPA-DD FRST/OOFF: d-5 – SEPA-DD RCUR/FNAL: d-2 – CH-DD: d	×	×

6.3 Test cases for cash and liquidity management

Test case	Description
L001	**Updating account balance upon receipt of account statement with detailed notification** This tests whether the account statement with detailed notification (camt.053) for the account currencies CHF and EUR is successfully processed. Upon receiving and processing the account statement (camt.053) in the software, the account balance for the respective currency should be reconciled with the current balance.
L002	**Updating account balance upon receipt of account statement with batch entries** This tests whether the account statement with batch entries (camt.053) for the account currencies CHF and EUR is successfully processed. Upon receiving and processing the account statement (camt.053) in the software, the account balance for the respective currency should be reconciled with the current balance.
L003	**Receiving and processing credit notification (camt.054)** This tests whether the credit notification (camt.054) has been successfully received and processed. To this end, a value is defined, and a camt.054 credit notice is sent when it is exceeded. Furthermore, a credit is made which exceeds this limit. This checks whether the processing of the corresponding credit notification (camt.054) is executed correctly for returned payments. After processing the corresponding credit notification (camt.054), the credit entry should be visible in the software.
L004	**Receiving and processing direct debit notification (camt.054)** This tests whether the direct debit (camt.054) notification has been successfully received and processed. To this end, a value is defined, and a camt.054 direct debit notice is sent when it is exceeded. Furthermore, a direct debit is made which exceeds this limit. This checks whether the processing of the corresponding direct debit notification (camt.054) is executed correctly for returned payments. After processing the corresponding direct debit notification (camt.054), the direct debit entry should be visible in the software.
L005	**Receiving and processing credit notifications (camt.054) in the event of returned payments** This tests whether the credit notification (camt.054) has been successfully received and processed in the event of returned payments. To this end, an amount is defined, and a camt.054 credit notice is sent when it is exceeded, and a return above this limit is sent to the account. This checks whether the processing of the corresponding credit notification (camt.054) is executed correctly for returned payments. After processing of the credit notification (camt.054), the returns should be linked to the original outpayment.
L006	**Processing split account statements** This tests whether split camt.053 (account statements) can be processed. A number of payments is executed, which effects a split account statement. This verifies whether the account statement (camt.053) can be split correctly when the size limit is reached, and whether the split account statements (camt.053) can be correctly processed in the software. In this way, the different splitting criteria are considered, such as meeting the size limit determined by the payment type from the financial institution's point of view and meeting the desired size limit from the customer's point of view.
L007	**Processing of large account statements** This tests whether account statements (camt.053) with 100,000 bookings can be processed.